AUGUST 24, 1953 **Freight Rates—Patterns or Prices?... p. 67**

RAILWAY AGE

The Standard Railroad WEEKLY for Almost a Century

LOOK FOR THEM UNDER THE DIESELS

Just what is a heavy-duty wheel? How would you define it?

One answer could be: "A Bethlehem wrought-steel diesel wheel."

That would be a truthful definition, though it doesn't by any means tell the whole story. For most of the story is told on the rails, where the tons and the miles provide the real test.

Under the punishing loads and increased speeds of modern transportation, Bethlehem diesel wheels will stand the gaff. There are no finer wheels made—none more expertly built for today's heavy service.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation

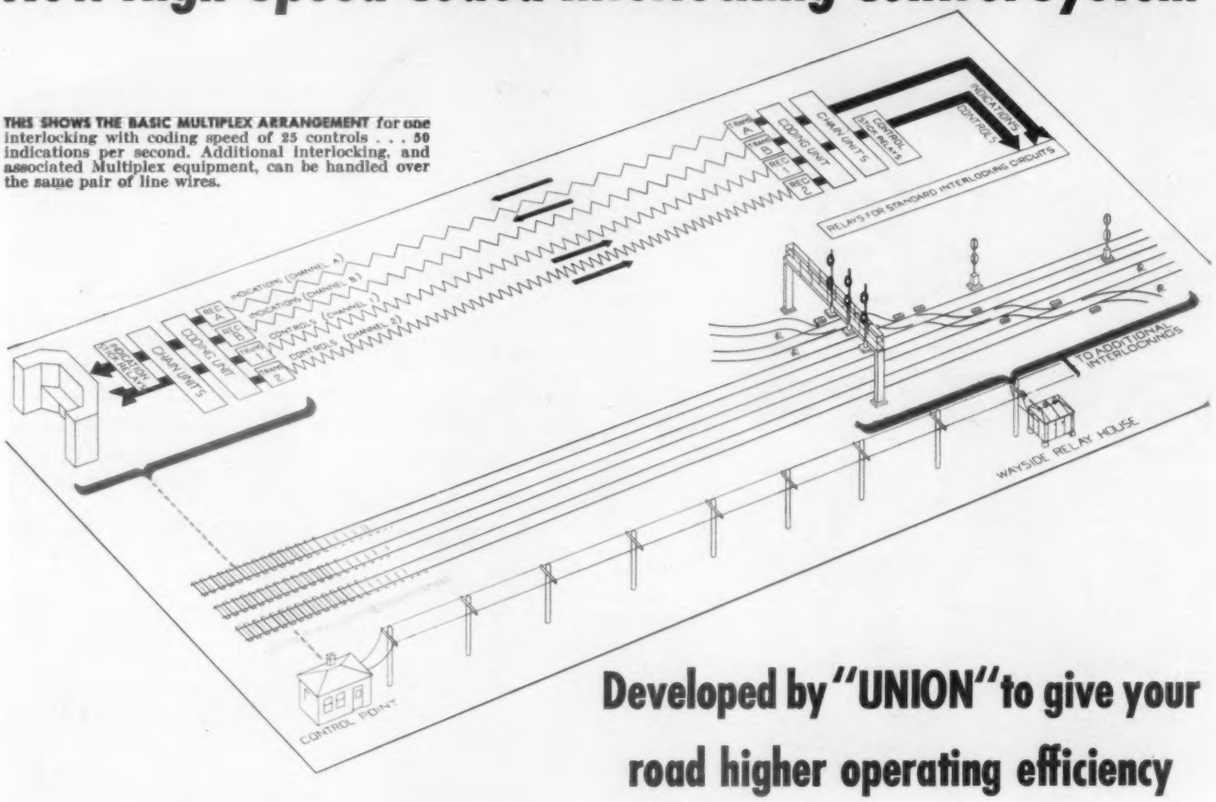
BETHLEHEM STEEL

BETHLEHEM WROUGHT-STEEL WHEELS

COMPANIONS TO BETHLEHEM FORGED-STEEL AXLES
FREIGHT • PASSENGER • DIESEL

New High-Speed Coded Interlocking Control System

THIS SHOWS THE BASIC MULTIPLEX ARRANGEMENT for one interlocking with coding speed of 25 controls . . . 50 indications per second. Additional interlocking, and associated Multiplex equipment, can be handled over the same pair of line wires.



Developed by "UNION" to give your road higher operating efficiency

"UNION" Multiplex Code Control System

THE MULTIPLEX CODE CONTROL SYSTEM uses standard Style C or UR control machines.

ARE you planning to build a new remotely-controlled interlocking . . . modernize an older one . . . or consolidate present interlockings for greater economies? If you are, consider these features of the new "Union" Multiplex Code Control System:

- It's the fastest all-relay coded interlocking control system yet developed.
- Basic system transmits 25 controls and 50 indications per second. Can be expanded in multiples of 25 controls and 50 indications per second, such as 50 and 100 per second . . . 75 and 150 per second . . . *simultaneously* over one pair of line wires.
- Each code can contain complete control and indication information for all functions at the interlocking . . . therefore a complete route can be set up with one code.

The "Union" Multiplex Code Control System is designed especially for large and busy interlockings. May we tell you the rest of the story?

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

RAILWAY AGE

PUBLISHED WEEKLY BY THE SIMMONS-BOARDMAN PUBLISHING CORPORATION AT ORANGE, CONN., AND ENTERED AS SECOND CLASS MATTER AT ORANGE, CONN. UNDER THE ACT OF MARCH 3, 1879. NAME REGISTERED IN U. S. PATENT OFFICE AND TRADE MARK OFFICE IN CANADA. EDITORIAL AND EXECUTIVE OFFICES AT 30 CHURCH STREET, NEW YORK 7, N. Y., AND 79 WEST MONROE STREET, CHICAGO 3, ILL. BRANCH OFFICES: 1081 NATIONAL PRESS BUILDING, WASHINGTON 4, D. C.—TERMINAL TOWER, CLEVELAND 13, OHIO—TERMINAL SALES BUILDING, PORTLAND 5, ORE.—1127 WILSHIRE BOULEVARD, LOS ANGELES 17, CAL.—244 CALIFORNIA STREET, SAN FRANCISCO 11, CAL.—2909 MAPLE AVENUE, DALLAS 4, TEX.

SUBSCRIPTION PRICE TO RAILROAD EMPLOYEES ONLY IN U. S., U. S. POSSESSIONS, CANADA AND MEXICO, $4 ONE YEAR, $6 TWO YEARS, PAYABLE IN ADVANCE AND POSTAGE FREE. SUBSCRIPTION PRICE TO RAILROAD EMPLOYEES ELSEWHERE IN THE WESTERN HEMISPHERE, $10 A YEAR; IN OTHER COUNTRIES, $15 A YEAR—TWO-YEAR SUBSCRIPTIONS DOUBLE THE ONE-YEAR RATE. SINGLE COPIES 50c, EXCEPT SPECIAL ISSUES $1. ADDRESS CORRESPONDENCE CONCERNING SUBSCRIPTIONS TO ROBERT G. LEWIS, ASSISTANT TO PRESIDENT, 30 CHURCH STREET, NEW YORK 7.

August 24, 1953 **Vol. 135, No. 8**

Week at a Glance

Highball your operations!

. . . cut costs with a P-A-X business telephone system

step up operations

Twenty-four hours a day—in every department, P-A-X helps get men, machinery, materials and equipment where needed with maximum efficiency.

streamline maintenance

In shops and yards, P-A-X coordinates maintenance activities. Supervisors keep in close touch with crews, solve problems on the job and direct crews to new jobs via P-A-X.

tighten up administration

From key officials on down the line, P-A-X cuts walking, delay, correspondence, errors. The office next door—or a distant department—can be reached in seconds with P-A-X.

Automatic telephone service links departments or divisions, in seconds!

The business of running a railroad calls for fast, direct telephone communications. More than forty leading railroads have met this need by modernizing their telephone communications with P-A-X Systems. P-A-X switchboards at key points—interconnected over railroad-owned circuits—provide the finest telephone communications . . . and at substantial savings compared to leased service!

And P-A-X gets results—close, *direct* control of operations—improved maintenance—fast, smooth service for shippers and passengers—dependable communications to meet emergencies promptly. Time is saved, costs are cut, working methods improved.

P-A-X job-designed for railroads

P-A-X is a system of "private" telephones, separate from the public telephone system, meeting the most exacting needs of the railroad industry. It is railroad-owned and operated over railroad-owned circuits—wire, carrier or radio. It is completely automatic and establishes all railroad "inside" calls within seconds, at any time! P-A-X is manufactured by Automatic Elecric, originator of the automatic (dial) telephone, and is of finest quality throughout.

This booklet shows how the Louisville & Nashville makes communications work for it in lowering costs and stepping up efficiency. The L & N gave us the facts; we'd like to send them on to you. Write for this study—today!

AUTOMATIC ELECTRIC

Makers of Telephone, Signaling and Communication Apparatus . . . Electrical Engineers, Designers and Consultants

Distributors in U.S. and Possessions:
Automatic Electric Sales Corporation . . . 1033 West Van Buren Street, Chicago 7, U.S.A.
In Canada: Automatic Electric Sales (Canada) Limited, 26 Hollinger Road, Toronto 13, Ontario
Export Distributors: International Automatic Electric Corporation, Chicago

Current Statistics

Operating revenues, six months	
1953	$ 5,327,188,193
1952	5,120,547,684
Operating expenses, six months	
1953	$ 4,022,851,781
1952	4,000,589,650
Taxes, six months	
1953	$ 642,481,080
1952	591,867,018
Nee railway perating income, six months	
1953	$ 548,696,771
1952	442,563,173
Net incme, estiomated, six mnths	
1953	$ 418,000,000
1952	310,000,000
Average price railroad stocks	
August 18, 1953	63.11
August 19, 1953	63.38
Car loadings revenue freight	
Thirty-two weeks, 1953	23,471,534
Thirty-two weeks, 1952	22,286,717
Average daily freight car surplus	
August 15, 1953	22,521
August 16, 1952	7,128
Average daily freight car shortage	
August 15, 1953	2,109
August 16, 1952	5,310
Freight cars delivered	
July 1953	6,370
July 1952	5,402
Freight cars on order	
August 1, 1953	47,423
August 1, 1952	95,265
Freight cars held for repairs	
July 1, 1953	95,768
July 1, 1952	105,255

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX AND BY THE ENGINEERING INDEX SERVICE. RAILWAY AGE INCORPORATES THE RAILWAY REVIEW, THE RAILROAD GAZETTE, AND THE RAILWAY AGE GAZETTE.

Departments

Week at a Glance CONTINUED

BRIEFS

Latest to rebel against the $2.40 per diem rate is the Long Island. Trustee William Wyer has advised the A.A.R. the Long Island will continue to "apply and observe" the old $2.00 rate.

Higher railway express rates became effective August 20. That was the date on which the agency placed in effect the recently authorized 15 per cent increase. The boost is expected to raise REA revenues by about $55 million annually.

Key to solution of loss and damage problem lies in graphic educational campaigns for men on the ground. That's the conclusion of all three winners of the Santa Fe's recent loss and damage suggestion contest. One winner went so far as to suggest making passage of an examination on loss and damage a prerequisite to promotion.

The HERTZ Rail-Auto Plan

is taking millions of travelers off the highways...and putting them back on the railroads!

More and More Railroads are joining Hertz in Promoting the Rail-Auto Plan

Yet the fight has just begun . . . and it's the railroad's fight too!

An amazing fact! Last year motorists drove approximately 500 billion miles between cities! Here is the heart of the biggest and most persistent competition railroads face today!

An effective solution! As originated by Hertz, the Rail-Auto Plan strikes at the very core of city-to-city driving! People drive long, tiring, hazardous road miles not because they want to drive . . . but because they need and want a car at their destination. Hence, the Hertz Rail-Auto Plan *sells* rail travel for greater comfort and convenience . . . and a Hertz Rent-A-Car upon arrival at passengers' destination.

Hertz Rail-Auto brings startling results! This Hertz Rail-Auto Plan, as promoted by Hertz with the ever-growing cooperation of railroads, has brought increased revenue to both Hertz and the railroads.

Last year, people who rented cars from Hertz at their railroad destinations, traveled approximately 136 million miles on railroads!

And make no mistake about it! Many rail passengers traveled these rail miles *mainly* because they knew they could rent a car from Hertz at their destination!

Powerful Hertz advertising promotes the Rail-Auto Plan! Throughout the year Hertz sells the Rail-Auto Plan in leading national magazines to millions of readers. And—it's paying off.

Alert railroad management joins the fight! Thanks to your cooperation . . . promotions . . . advertising . . . and personal efforts of your ticket agents, the Hertz Rail-Auto Plan is growing steadily . . . consistently . . . successfully. But—there is still much to do. Use displays in your ticket offices. Advertise the Plan in your timetables. Run separate rent-a-car advertisements and in your own general advertisements devote space to the Plan.

Tell your ticket agents about Hertz 10% commission! This additional income for your agents—and it takes only a few minutes to earn it—plays an important part in advancing the Hertz Rail-Auto Plan. Tell your agents to ask this simple question of all passengers buying rail tickets:

May I reserve a car for you at your destination?

Just as soon as the car rental is completed, the Hertz station concerned will pay 10% commission on the total rental charge.

Remember! Hertz, the largest rent-a-car system in the world, established for 29 years, offers its excellent, dependable service at more than 700 stations in over 500 cities throughout the world. Hertz honors Rail Credit Cards . . . and more than one million and a half Hertz Charge Cards and Courtesy Cards! Hertz spends more than $2,000,000 yearly in advertising. Hertz provides rail travelers with new clean cars with all gasoline, oil, Public Liability, Property Damage, Fire and Theft Insurance and $100.00 deductible collision protection included in the low rate—at no extra cost.

WRITE TODAY for additional information . . . reservation forms . . . for everything your ticket agents need to promote the Rail-Auto Plan . . . continuously . . . actively . . . profitably. It's your fight, too!

HERTZ *Rent-A-Car* **SYSTEM** Dept. D83, 218 S. Wabash Avenue, Chicago 4, Illinois; phone: WEbster 9-5165

Week at a Glance CONTINUED

"Tax laws of the states have lagged far behind the tremendous growth of the trucking industry and the very marked increase in costs of building and maintaining highways, so the long-haul trucker is paying much less than his share of highway costs. This is not a conclusion reached by a railroad-sponsored study, but by studies made by many groups and experts in no way connected with the railroad industry. The study made for the California Legislature in 1948 concluded that big trucks should pay 52 per cent of the construction and maintenance cost of highways."—*From an address by R. J. Littlefield, general tax agent, Pennsylvania, at Red Bank, N. J.*

A major construction project, involving depression of railroad tracks entering South Station, construction above the depressed tracks of a 10,000-car automobile parking lot, and tunneling under part of the station for an arterial highway, is said to be under consideration in Boston. Reportedly suggested by officers of the New Haven, the plan has been described as the "brightest idea yet" for easing the city's traffic problem.

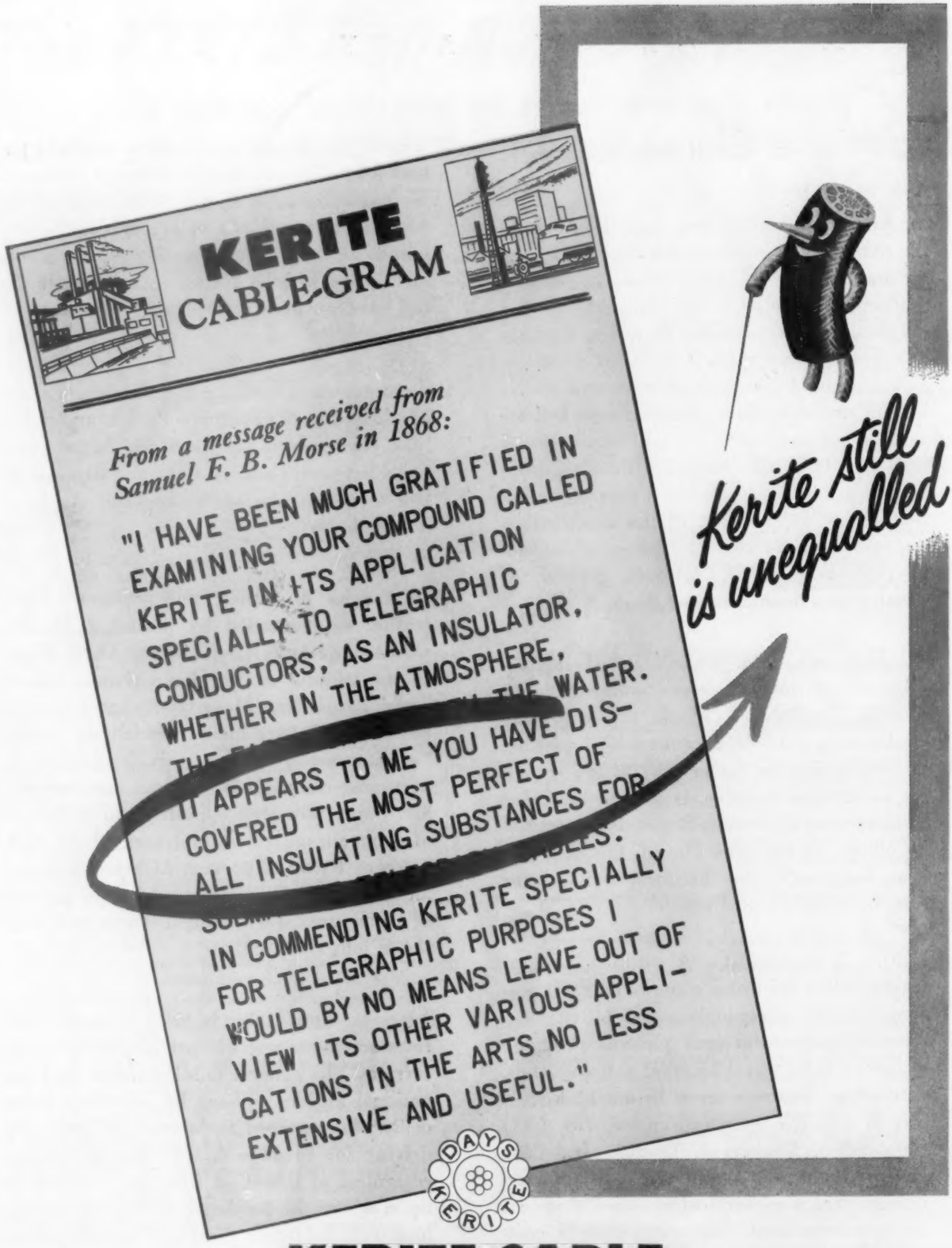
"Don't use Chesapeake & Ohio passenger trains," was the order given to 60 C&O passenger traffic salespeople asked to attend a recent departmental staff meeting. Purpose of having them travel by other railroads, bus, automobile, boat—or even by hitchhiking—was to broaden their experience with C&O competition. Thomas J. Deegan, Jr., C&O vice-president, passenger traffic and public relations, said a survey had revealed that half the passenger staff had never made a commercial flight. "Exposure to the airlines' charming hostesses and supposedly free meals and the modern air-conditioned bus will show them that railroads can compete only by top-quality service and salesmanship," he added.

A whistle for diesel locomotives has been patented by a Rock Island locomotive engineer. He has designed it to use a minimum of air while sounding. Made of brass, it looks and sounds much like a regular three-chime steam locomotive whistle. No manufacturing facilities have yet been established.

Bulk sugar cars, built by the Western Pacific and leased to the Southern Pacific, are giving such good service for the Holly Sugar Company between Carlton, Cal., and Dyer, that two more of them are to be built at Sacramento shops.

That trucks do "pick and choose" their traffic was conceded by Walter F. Carey, president of American Trucking Associations, in an address to the Pennsylvania Motor Truck Association. Many types of motor transport, he said, "are highly specialized," while "even common carriers rely heavily upon particular commodities." In the same speech, Mr. Carey indicated opposition to reduction of any railroad rates; and accused the railroads of trying to prevent highway improvement so as to "make motoring a chore instead of a pleasure." (We thought trucks had done *that* a long time ago!)

"Shippers should always keep in mind that rates are the source of operating revenue for carriers. The general public interest and the national welfare will not be served by financially weak carriers. Those who are constantly driving for break-neck rates for themselves regardless of the effect upon the carriers or upon whom the burden may fall, are in the long run defeating the basic overall public need for efficient service. They are also retarding progress in transportation."—*From an address by Interstate Commerce Commissioner Anthony F. Arpaia to the New Haven, Conn., Chamber of Commerce.*



KERITE CABLE

THE KERITE COMPANY—30 Church St., New York 7, N. Y.
Offices also at 122 S. Michigan Ave., Chicago; 582 Market St., San Francisco;
3901 San Fernando Rd., Glendale 4, Calif.; 31 St. James Ave., Boston

THE VALUE AND SERVICE LIFE OF A PRODUCT CAN BE NO GREATER THAN THE INTEGRITY AND CRAFTSMANSHIP OF ITS MAKER.

I. C. C. Gets A Managing Director

E. F. Hamm, Jr., president of Traffic Service Corporation, will take office August 26

E. F. Hamm, Jr., president of Traffic Service Corporation and publisher of "Traffic World," has been appointed to the newly created position of managing director of the Interstate Commerce Commission.

Mr. Hamm, 44, will begin his new duties August 26. As managing director of the I.C.C. he is expected to assume all administrative functions of the commission, and he will have full authority over all civil service rated personnel of the agency.

Creation of a managing directorship for the I.C.C. was one of the principal recommendations in the so-called Wolf Report. That report, prepared by the Wolf Management Engineering Company, was based on a six-month survey of the agency.

The Senate Interstate Commerce Committee sponsored the survey. Its purpose was to determine what changes the I.C.C. should make "in order to promote maximum efficiency."

The Wolf firm submitted its report to the Senate committee earlier this year, and Congress later adopted a report which "practically ordered" the I.C.C. to place the Wolf Report in effect.

The I.C.C., meanwhile, already had taken steps in this direction. On May 19 it directed Chairman Alldredge to draw up a tentative plan of organization along the lines recommended in the Wolf Report. On July 7 it announced it was looking "with diligence" for a managing director.

Mr. Hamm's appointment to the position was announced August 19. The job carries a civil service rating of "GS-18" and pays $14,800 a year. It is exempt from the usual competitive-examination requirements of the Civil Service Commission.

The I.C.C. announcement said Mr. Hamm has been president and treasurer of the Traffic Service Corporation since 1933. The corporation publishes "Traffic World Daily," "Traffic World," and "Traffic Bulletin." Mr. Hamm has been publisher of these papers since 1944.

He is, in addition, president and treasurer of the College of Advanced Traffic, Chicago, and of the Academy of Advanced Traffic, which has offices and facilities in New York and Philadelphia. These are technical schools offering instruction in traffic management and interstate commerce law. They are subsidiaries of Traffic Service Corporation.

Mr. Hamm has announced he will resign as president of Traffic Service Corporation before joining the I.C.C.

During World War II, Mr. Hamm served as a consultant in the magazine section of the Printing and Publishing Division, War Production Board (1944-45), and from 1951 to 1953 he served in similar capacity with the National Production Authority.

Among other things, Mr. Hamm is a founder member of the American Society of Traffic and Transportation, and is secretary of the Associated Traffic Clubs Foundation. In 1948-49 he served as president of the Associated Business Publications, a business paper organization with a membership of more than 120 papers and representing a combined circulation of more than 5 million.

Lee Retires From I.C.C.; Was Appointed in 1930

Interstate Commerce Commissioner William E. Lee retired August 18, having completed more than 23 years as a member of the commission.

At a ceremony marking his retirement, Mr. Lee's successor, Howard G. Freas of California, was sworn in. Mr. Freas' appointment to the I.C.C. was confirmed by the Senate July 16 (*Railway Age*, July 27, page 11).

Commissioner Lee was first appointed to the commission in 1930 by President Hoover, and subsequently was reappointed by Presidents Roosevelt and Truman. His latest term expired December 31, 1952, but he continued to serve until a successor qualified.

Mr. Lee was born January 27, 1882, in North Carolina. He attended schools in Idaho, and graduated from the University of Idaho in 1903. He received his law degree from the National University Law School in Washington, D.C., in 1906.

At the time of his appointment to the I.C.C. in 1930, Mr. Lee was serving as Chief Justice of the Idaho Supreme Court. He was first elected an associate justice of that court in 1922, after having practiced law in Idaho for several years.

During Commissioner Lee's years on the I.C.C., the work of the commission was greatly expanded. The Motor Carrier Act of 1935, the Transportation Act of 1940, and the addition of Part IV of the Interstate Commerce Act all added new duties.

At the ceremony marking his retirement, the commission presented Mr. Lee with a scroll which noted, among other things, that Commissioner Lee played "an important part" in helping administer the Motor Carrier Act since its passage in 1935.

Kenneth H. Tuggle, former lieutenant governor of Kentucky, whose ap-

William E. Lee

Kenneth H. Tuggle

Simpson Heads B&O; White Elected Chairman

Howard E. Simpson, executive vice-president of the Baltimore & Ohio since September 1, 1952, was elected president at the regular monthly meeting of the board of directors held in New York August 18. The election will be effective September 1, when Mr. Simpson will succeed Colonel Roy B. White, who has been president of the B&O since June 1, 1941, and who now becomes chairman of the board.

pointment as a new member of the commission was confirmed by the Senate July 31 (*Railway Age*, August 10, page 13), will take his oath of office, as successor to former Commissioner Walter M. W. Splawn, about September 1.

Rates & Fares

Union Pacific to Try Family Plan Fares

Effective September 1, the Union Pacific will offer a new family plan for passenger fares. The plan will apply to first-class travel only and Pullman accommodations must be purchased at regular rates.

Briefly, the plan requires the head of the family to pay a full one-way fare in both directions of a round trip. The other parent and all children from five to 22 years of age then pay only one-half the one-way fare in each direction. Children under five continue to ride free. The tickets may be used on any train—including the road's extra fare streamliners—but they are limited to trips beginning Monday, Tuesday or Wednesday of any week. The family group may check up to 300 lb. of baggage without charge.

The Wabash and the Chicago & North Western will allow the family rates to apply on trains operated jointly with the UP out of St. Louis and Chicago.

By way of example, the UP cites a family consisting of husband, wife, and three children between the ages of 12 and 22 making a round trip from Chicago to Los Angeles. Under the plan they will save a total of $166.23 in the price of their rail tickets.

I.C.C. Will Take Another Look At Baggage Tariffs

The Interstate Commerce Commission has agreed to reconsider a recent ruling in which Eastern and Southern railroads were told they could not establish service charges for handling baggage checked on passenger tickets.

Division 2, by a two-to-one decision, ordered the carriers to cancel tariffs which would have imposed a charge of 25 cents for each piece of hand luggage, including bundles, and 50 cents for each trunk (*Railway Age*, June 8, page 10).

The rail carriers asked the entire commission to reconsider the Division 2 ruling. The commission agreed to do so, but denied a request for oral argument. It said the "matters involved are sufficiently presented in the record."

Several state commissions are opposing the proposed baggage charges, but the railroads argue the charges will help pay clerical costs and will contribute to a reduction in the passenger deficit.

Purchases & Stores

Russell Stresses Low Inventories

Why it is good business for the Southern Pacific to keep its inventories at the lowest possible point, and how supervisors and employees can help accomplish that goal without interfering with smooth operation of the road, are set forth by D. J. Russell, president of the road, in an article in a recent issue of the Southern Pacific Bulletin.

Entitled "Why Our Inventories Are Low," the article points out that during the past four years the SP has been able to reduce system inventories of materials by $14.5 million. "Having this extra cash available allowed us to obtain new diesel locomotives and other improvements much sooner than could otherwise have been done." Mr. Russell points out also that low inventories help prevent losses due to obsolescence and deterioration and cut the cost of carrying and handling.

"Even though market prices may rise in the future, savings that might be made on purchases of large but excessive quantities would in most cases be minor compared with savings that could be achieved by investing the same amount of money in improvements and equipment that help us do our job better and more efficiently.

"There are two ways in which everyone can help us to operate efficiently with lower inventories: (1) by making accurate forecasts of requirements, and (2) by not asking for excessive quantities of materials. All users of materials and supplies can forecast their needs with considerable accuracy for months to come, including the dates on which various quantities of materials should be available."

OFFICIAL OPENING of the Canadian National-Grand Trunk building at 131 West Lafayette boulevard, Detroit, was carried out by S. J. Massey, Jr., (key in hand), J. H. Bailey (on Mr. Massey's right), Canadian vice-consel, and a group of CNR and GTW officers. Formerly known as the Transportation building, it was purchased to provide headquarters for the GTW and has undergone extensive modernization.

Competitive Transport

I.C.C. Postpones Ban On Truck Trip-Leasing

Trip-leasing of trucks can continue until next March 1 as a result of the latest ruling handed down by the Interstate Commerce Commission.

The I.C.C.'s ban on trip-leasing was scheduled to become effective September 1, but the commission decided on a six-months delay as a result of requests from Congress.

A commission order to this effect was issued August 14. The order noted that in the last session of Congress the House passed a bill which would end the commission's authority to prohibit trip-leasing; and the Senate Interstate Commerce Committee held hearings on this bill "but was unable to report the bill for action by the Senate prior to adjournment."

In addition, the commission said, the Senate Committee on Agriculture and Forestry adopted a resolution requesting the commission to delay its trip-leasing order "until Congress shall have completed action on this bill."

The delay ordered by the commission is a limited one. It applies only to two provisions of the general leasing order adopted by the commission in May

1951. Other provisions, such as those requiring inspection of leased vehicles, and that leases be in writing, will become effective on September 1.

Postponed until March 1, 1954, is the provision requiring that any lease of equipment "shall not be less than 30 days." Also postponed is the provision which prohibits rental payments of the revenue-splitting type.

Prior to delaying the trip-leasing ban, the commission on July 31 had further modified its original order to extend the exemption for farmer-owned trucks to include trucks owned by farmer cooperatives.

Law & Regulation

I.C.C. Schedules Hearing On New REA Contract

The Interstate Commerce Commission has scheduled a hearing for September 9 on the proposed new contract between the railroads and the Railway Express Agency (*Railway Age*, August 3, page 11). Commissioner James K. Knudson and Examiner Howard Hosmer will conduct the hearing, which will be held in Washington, D.C.

The existing REA contract expires Feburay 28, 1954, and a new contract has been filed which would extend express operations in substantially their present form until December 31, 1973.

Division Assignments Are Revised at I.C.C.

A new assignment of commissioners to divisions of the Interstate Commerce Commission was announced last week following the retirement of Commissioner William E. Lee and the swearing in of Commissioner Howard G. Freas.

An August 19 notice gave the following line-up:

Division 1 (Administration): Commissioners Mahaffie, Alldredge, Knudson and the Chairman ex officio.

Division 2 (Rates, Tariffs and Valuation): Commissioners Alldredge, Arpaia and Freas.

Division 3 (Rates, Service and Safety): Commissioners Knudson, Arpaia and Clarke.

Division 4 (Finance): Commissioners Mahaffie, Mitchell and Cross.

Division 5 (Motor Carriers): Commissioners Cross, Elliott and Clarke.

The I.C.C. announced that its Legislative and Rules Committee will now consist of Chairman Johnson and Commissioners Mahaffie and Freas. Commissioner Cross was formerly a member of this group.

Four I.C.C. bureaus were also involved in the changes when administrative supervision of the bureaus was assigned to different commissioners.

The Bureau of Motor Carriers will report to Commissioner Cross; the Bureau of Transport Economics and Statistics, to Commissioner Freas; the Bureau of Formal Cases, to Commissioner Arpaia, and the Bureau of Law, to Commissioner Mitchell.

Education

F. R. P. Discloses Names Of Fellowship Winners

Three railroad employees have been selected by the Federation of Railway Progress as winners of the federation's first annual Fellowship Awards, Thomas J. Deegan, Jr., chairman of F.R.P., announced last week.

Winners were Donald C. Sensenbaugh, Western Maryland yardmaster, Pikesville, Md.; Lawrence A. Payseure, Chesapeake & Ohio electronic maintainer, Richmond, Va., and Laurence L. Moore, Great Northern city freight agent at Portland, Ore.

Each man was awarded a scroll and a check for $1,000. The winners will enter colleges this fall for a year of study.

Mr. Deegan, who presented the awards, said the federation has been long alarmed about the lack of interest college graduates take in railroading as a career. He said he hoped the industry would follow the federation's example and make similar awards to its own employees.

Dr. William N. Leonard, president of F.R.P. and head of the department of economics, Hofstra College; David I. Mackie, chairman of the Eastern Railroad Presidents Conference, and James G. Lyne, editor of *Railway Age*, served as judges in the federation's contest.

Employees of Class I railroads are eligible to apply for the annual federation awards. One winner is selected from each of the Eastern, Southern and Western districts.

Accounting

New "Railway Accounting Rules" Will Be Published

The next edition of "Railway Accounting Rules," which is published by the Accounting Division of the Association of American Railroads, is expected to be available for distribution about the middle of next month, according to an announcement by Division Secretary R. E. Keefer.

The edition, designated the October 1, 1953, edition, will supersede on that date the presently effective October 1, 1952, edition. Mr. Keefer's announcement said one copy will be furnished without charge to each accounting officer who is a member of the Accounting Division.

Additional copies may be obtained by member roads and their employees for $1 each.

The price to non-member roads and others is $2 per copy. Orders should be placed with Mr. Keefer, Transportation building, Washington 6, D.C., with remittances made payable to the A.A.R.

ANOTHER CUSTOMER FOR CREAM!

There has been a lot of publicity in newspapers about a proposal from American Airlines that it carry all first-class mail between New York and Los Angeles for 25 cents per ton-mile, against an alleged average charge of 36 cents per ton-mile for transportation of first-class mail by rail. The implication that railroad charges are as high as this is in error, because the railroad charge includes facilities for sorting mail en route.

The alleged figure of 36 cents a ton-mile for rail movement also includes payments for handling first-class mail by railroads, truck lines, star route carriers, power boats, etc. The payments to railroads alone are probably about 34 cents per ton-mile. This is based on payments, not only in fully loaded cars but in cars carrying small and diminishing amounts of mail.

Between large cities the rail handling cost to the post office would be much lower. The railway post office car rate is 56 cents a mile for the entire car and, in an area of heavy volume, these cars would handle at least 5,000 lb. of mail and probably closer to 10,000 lb. The rate would therefore be not 34 cents per ton-mile but between 11 and 22 cents a ton-mile.

Moreover, if the railroads handled mail as American Airlines proposes, without sorting en route, the rate for 30,000 lb. of mail in a baggage car between New York and Los Angeles would be only 4.7 cents a ton-mile (66 cents a car-mile plus $99.60 per car terminal charges).

Mail by air has been recently stated to move at 52¾ cents per ton-mile. This presumably is the rate charged by the major air lines which handle mail in large volume. On all air mail, including subsidies, the cost to the post office is $1.34 per ton-mile. Even excluding subsidies, the average cost on all air routes, light as well as heavy density, is 68.8 cents per ton-mile. An increase of 45 per cent in the alleged cost of handling first-class mail by rail of 36 cents per ton-mile would be only 52.2 cents a ton-mile. The air line's offer is in the "pick-and-choose" category — applying to heavy-volume movement. Railroad charges are based on averages which include the "skim-milk" as well as the "cream."

Amortization Certificates

Certificates of necessity for accelerated amortization of defense facilities were granted to eight railroads and one refrigerator car line during the period from June 18 through July 1, the Office of Defense Mobilization has announced.

The companies which received the fast-write-off certificates are listed below, together with the amounts approved by O.D.M. and the percentages of those amounts which can be written off in five years.

Central of Georgia, $6,568,587—70 per cent; $185,408—55 per cent.
Chicago, Burlington & Quincy, $7,356,250—55 per cent; $1,630,000—70 per cent.
Fruit Growers Express, $1,042,310—70 per cent.
Great Northern, $165,000—40 per cent.
Louisville & Nashville, $604,000—40 per cent.
Northwestern Pacific (and Southern Pacific), $127,435—40 per cent.
St. Louis Southwestern, $1,020,000—70 per cent.
Seaboard Air Line, $84,100—40 per cent.
Southern Pacific, $54,560—40 per cent.

In its report for the period from July 2 through July 15, O.D.M. showed that certificates then approved included the following:

Alabama Great Southern, $200,000—70 per cent.
Bangor & Aroostook, $6,500,000—70 per cent.
Birmingham & Southeastern, $58,977—55 per cent.
Chicago & Eastern Illinois, $865,750—70 per cent.
Chicago, Indianapolis & Louisville, $35,700—70 per cent.
Chicago, Milwaukee, St. Paul & Pacific, $3,926,349—40 per cent.
Cincinnati, New Orleans & Texas Pacific, $10,538,679—40 per cent.
Great Northern, $62,000—40 per cent; and $68,800—50 per cent.
Gulf, Mobile & Ohio, $1,212,500—70 per cent.
Lehigh Valley, $1,400,000—70 per cent.
Louisville & Nashville, $2,487,500—70 per cent.
New Orleans & Northeastern, $200,000—70 per cent.
New York, Chicago & St. Louis, $4,016,312—55 per cent.
Oregon Electric, $140,770—40 per cent.
Pennsylvania Company, $7,835,000—55 per cent.
Reading, $4,665,302—55 per cent.
Savannah & Atlanta, $1,747,767—70 per cent.
Seaboard Air Line, $6,633,800—70 per cent.
Texas & New Orleans, $54,392—40 per cent.
Union (Pittsburgh), $2,305,000—40 per cent.
Union Pacific, $1,720,000—55 per cent; and $318,857—70 per cent.
Virginian, $645,000—40 per cent.
Wabash, $357,000—70 per cent.
Western Maryland, $2,546,700—70 per cent.

In its report for the period from July 16 through July 29, O.D.M. showed that certificates then approved included the following:

Atchison, Topeka & Santa Fe, $3,400,000—55 per cent.
Chicago & Eastern Illinois, $43,270—40 per cent.
Chicago, Milwaukee, St. Paul & Pacific, $6,050,161—55 per cent.
Cincinnati, New Orleans & Texas Pacific, $350,000—70 per cent.
Illinois Central, $44,180—40 per cent.
Missouri Pacific, $4,443,000—70 per cent.
Pennsylvania, $4,631,000—55 per cent.
St. Louis-San Francisco, $4,532,400—70 per cent.
Texas & New Orleans, $5,014,539—40 per cent.

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended August 15 totaled 807,387 cars, the Association of American Railroads announced on August 20. This was an increase of 22,038 cars, or 2.8 per cent, compared with the previous week; an increase of 1,631 cars, or 0.2 per cent, compared with the corresponding week last year; and a decrease of 22,011 cars, or 2.7 per cent, compared with the equivalent 1951 week.

Loadings of revenue freight for the week ended August 8 totaled 785,349 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, August 8

District	1953	1952	1951
Eastern	132,758	124,118	135,553
Allegheny	157,188	153,589	163,527
Pocahontas	59,437	57,085	64,005
Southern	121,515	120,599	122,300
Northwestern	136,750	146,325	139,589
Central Western	119,501	120,207	123,472
Southwestern	58,200	59,725	60,919
Total Western Districts	314,451	326,257	323,980
Total All Roads	785,349	781,648	809,365
Commodities:			
Grain and grain products	49,210	54,089	53,977
Livestock	6,410	7,208	8,085
Coal	132,682	138,328	143,690
Coke	13,093	10,722	16,641
Forest products	47,580	46,672	48,685
Ore	91,862	92,819	88,625
Merchandise l.c.l.	68,943	71,930	73,408
Miscellaneous	375,569	359,880	376,254
August 8	785,349	781,648	809,365
August 1	793,754	733,076	813,388
July 25	780,705	607,190	820,476
July 18	791,414	609,000	805,378
July 11	721,454	572,362	779,308
Cumulative total 32 weeks	23,471,534	22,286,717	24,534,387

In Canada.—Carloadings for the seven-day period ended August 7 totaled 73,815 cars, compared with 126,535 cars for the previous 10-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
August 7, 1953	73,815	29,999
August 7, 1952	77,075	30,920
Cumulative Totals		
August 7, 1953	2,376,014	992,448
August 7, 1952	2,445,636	1,031,018

Operations

North Western Joins "Piggy-Back" Parade

Two loaded highway trailers arrived in Chicago August 14 aboard a Chicago & North Western flat car in a regularly scheduled freight train. They had been loaded aboard the car at Green Bay, Wis., the night before—and they inaugurated the C&NW's new "piggy-back" service now established between those two cities.

The trailers, however, were not those of motor common carriers. They belonged to the road's pick-up and delivery service which coordinates local handling in Chicago and Green Bay with rail service between those points.

The C&NW has emphasized that the service is "an intensive test." Four flat cars have been converted for the trailer service, each being capable of handling two C&NW trailer units. Ramps, for loading, have been constructed at Green Bay and at Proviso yard, near Chicago. In loading the trailers with l.c.l. shipments, an attempt is being made to load in delivery order.

J. E. Goodwin, C&NW vice-president in charge of operation, said the operation will be used as a "guide to expansion of this type of service to various parts of the North Western system."

National Carloading Opens Four New Florida Offices

The National Carloading Corporation has opened new offices and operating terminals at Jacksonville, Fla., Miami, Tampa and Orlando. T. R. Hudd, president of the freight forwarding concern, said the improved Florida service will supply businessmen of that state "with a faster-type one-company service from northern and western states, as well as to and from the Pacific coast."

Equipment & Supplies

FREIGHT CARS

The **Chicago, Milwaukee, St. Paul & Pacific** has ordered 100 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company for delivery next year.

The **Erie** has ordered 1,000 freight cars costing $6,900,000. The Pullman-Standard Car Manufacturing Company

TRANSISTORS TRIED OUT IN CAB SIGNALING

Transistors have been applied in cab signaling by the General Railway Signal Company.

On February 13, 1953, after comprehensive laboratory tests, a transistor-equipped amplifilter unit for cab signals was substituted for the conventional vacuum-tube amplifilter on a diesel-electric locomotive of an eastern railroad. The locomotive on that date made a regularly scheduled run, operating with cab signals controlled through the transistor amplifilter. On April 21, 1953, a transistor cab signal amplifilter was placed in regular road service on the same railroad, followed by a second unit May 20.

These units were designed to be interchangeable with vacuum-tube amplifilters already in service, and operated under the same conditions. Performance to date indicates that the transistor—with its ruggedness, compactness, low power requirements, and potentially unlimited life—may well supplant the vacuum tube for cab signal service, in the not too distant future.

will build 500 40-ft., 50-ton box cars; the Greenville Steel Car Company, 300 52-ft., 70-ton gondola cars; and the road's Dunmore, Pa., shops, 200 50-ft., 50-ton box cars. Deliveries are scheduled for early next year. Authorization by the Erie's board to purchase this equipment was reported in *Railway Age*, June 1, page 89.

The **Missouri-Kansas-Texas** has ordered from the American Car & Foundry Co. 25 50-ton flat cars for delivery in the first quarter of 1954.

The **Pennsylvania** has ordered 300 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company at an approximate cost of $2,300,000. Deliveries are to be completed early next year. The road's inquiry for these cars was reported in *Railway Age*, July 27, page 17.

PASSENGER CARS

The **Atchison, Topeka & Santa Fe** has ordered six full-length dome cars from the Budd Company. These are in addition to the eight full-length dome-lounge cars which were part of a recent Santa Fe order for 113 passenger-train cars (*Railway Age*, September 29, 1952, page 19).

LOCOMOTIVES

The **Reading** has ordered 24 diesel locomotive units costing $4,325,000. Fairbanks, Morse & Co. will build five 2,400-hp. "Trainmaster" road units; the Electro-Motive Division of General Motors Corporation, 12 1,500-hp. road-switchers; and the American Locomotive-General Electric Companies, seven 1,600-hp. road-switchers. Delivery is to be completed before the end of next October. When this equipment is received, the Reading's motive power will be 82 per cent dieselized.

Organizations

McKenzie, May, to Make Addresses

Cotton Belt chief, new A.A.R. vice-president, will speak to Roadmasters' and Bridge and Building groups September 15

The concurrent annual conventions of the Roadmasters' and Maintenance of Way Association and the American Railway Bridge & Building Association will start with a joint session in Chicago's Conrad Hilton Hotel September 15. R. G. May, former assistant vice-president—operations and maintenance of the New York Central, who will succeed James H. Aydelott as vice-president of the Operations and Maintenance Department of the Association of American Railroads on September 1, will address the joint opening session, as will H. J. McKenzie, president of the St. Louis Southwestern. Mr. McKenzie will talk on "What Management Expects of the Supervisor—and Vice-Versa."

Both conventions will continue concurrently through September 17. On the afternoon of the 16th, each will adjourn to permit members to visit exhibits of the Track Supply Association and the Bridge & Building Supply Association in the Coliseum at 1513 South Wabash avenue. That evening, in the Grand Ballroom of the Hilton, a joint, informal banquet of all four groups is scheduled to start at 6:30 p.m. Details of the convention programs follow:

Roadmasters' and M. of W. Association

TUESDAY, SEPTEMBER 15

2:00 p.m.—Address by President R. H. Gilkey, division engineer, Central of Georgia.
2:15 p.m.—Recognition of past presidents.
2:30 p.m.—Standard Practice in Use of Large On-Track Tamping Machines—committee report.
3:15 p.m.—Roadbed Stabilization—committee report.

WEDNESDAY, SEPTEMBER 16

9:30 a.m.—Methods and Practices of Joint and Rail-End Maintenance—committee report.
10:15 a.m.—"What About the Section Foreman Problem?" Address by W. M. S. Dunn, general roadmaster, New York, Chicago & St. Louis.
11:00 a.m.—Maintenance of Branch Lines and Other Light Traffic Lines—committee report.

THURSDAY, SEPTEMBER 17

9:30 a.m.—Safety Education, Methods and Results—committee report.
10:00 a.m.—Preventive Planning. Address by D. E. Mumford, manager of safety, New York Central.
10:45 a.m.—Rigid or Spring Frogs, Where to Use and Why—committee report.
11:15 a.m.—Business session.
1:30 p.m.—Visit to the new retarder classification yard of the Chicago, Milwaukee, St. Paul & Pacific at Bensonville, Ill., aboard special train from Chicago Union Station. This trip will return to the station at 4:30 p.m.

Bridge & Building Association

TUESDAY, SEPTEMBER 15

2:00 p.m.—Address by President Foster R. Spofford, assistant to chief engineer, Boston & Maine.
2:15 p.m.—Recognition of past presidents.
2:30 p.m.—Selection and Training of B. & B. Department Personnel—committee report.
3:00 p.m.—Ventilation and Air Conditioning of Railway Buildings—committee report.
3:45 p.m.—Research Toward Fireproofing Treated Timber Trestles—a motion picture presentation by the Santa Fe.

WEDNESDAY, SEPTEMBER 16

9:30 a.m.—Application of Modern Machines and Power Tools to Bridge Maintenance—committee report.
10:15 a.m.—Programming Repairs and Replacements—committee report.
11:00 a.m.—Rejuvenation of Safety Meetings—committee report.

THURSDAY, SEPTEMBER 17

9:30 a.m.—Conversion of Shop Buildings for Diesel Maintenance—committee report.
10:15 a.m.—Furnishing Water Under Emergency Conditions—committee report.
11:00 a.m.—Business session.

"FAITHFUL AND COOPERATIVE spirit in release of employees for performance of military duty," is recognized by this certificate of appreciation presented to L. B. Clary (center), general manager of the St. Louis-San Francisco, by the Fifth Army. Here Lt. Col. Jesse Johnson (left) hands the certificate to Mr. Clary as P. J. Schmitz, superintendent of the Frisco's Northern division at Fort Scott, Kan., and commander of the road's 750th Railway Operating Battalion, looks on.

A short course in how to make quality concrete will be presented by the Portland Cement Association beginning at 1:30 p.m. Two motion pictures are included in the program, which will be completed by 5 p.m.

The **Columbus Transportation Club** will hold its annual autumn golf outing and dinner at Harbor Hills Country Club, Buckeye Lake, Ohio, August 27.

Supply Trade

The **Vapor Heating Corporation** has transferred the following sales and service personnel: **J. E. Morris,** district manager at St. Paul, to St. Louis; **W. W. Orr,** salesman at Chicago, to succeed Mr. Morris; **T. J. Mahoney,** manager at St. Louis, to general sales staff at Chicago; **T. J. Lehane,** engineer at Chicago, to sales department there; **W. J. Burrows,** salesman at Montreal, to western division manager of **Vapor Car Heating Company of Canada,** at Winnipeg; and **E. D. O'Neill,** district manager at Winnipeg, to succeed Mr. Burrows.

John H. Cleland, who has handled advertising and public relations for the Minneapolis & St. Louis as account executive since 1944, will continue that association in his capacity as partner in the new Minneapolis advertising firm of **Grubb-Cleland Company,** successor to **Edward Grubb & Co.**

Alexander T. Daignault will join **Westinghouse Air Brake Company** September 1, in the newly created office of vice-president in charge of finance. He will resign as treasurer and a director of **Dewey & Almy Chemical Co.**

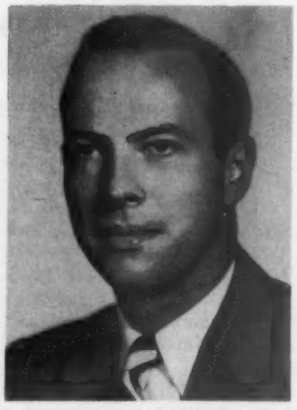
Marvin O. Crawford, special representative to Pacific coast railroads for **Wyandotte Chemicals Corporation,** has been transferred to Baltimore, to service some eastern roads.

The **American Creosoting Company** has completed arrangements for a new wood preserving and manufacturing plant to be constructed between Binghamton and Waverly, N.Y. The plant, which is expected to begin operation in January 1954, will have access to four railroads. A considerable part of the equipment in the plant will, the company's announcement says, be of a design and construction not heretofore known or used in the industry.

A. P. Torres has been appointed manager of the Tampa, Fla., branch of **Graybar Electric Company,** succeeding **R. S. Robinson,** who has given up active work because of his health.

Youngstown Sheet & Tube Co. has acquired an interest in **Perrault Fibercast Corporation,** of Tulsa, Okla., which will be known as the **Fibercast Corporation.** Its glass fiber-reinforced thermo-setting plastic pipe will be distributed through **Continental Supply Company, Youngstown Steel Products Company** and **Youngstown Steel Products Company of California.**

J. A. Wiedmann, manager of the sales service department of **Safety Car Heating & Lighting Co.,** has retired. **Harry W. Jones, Jr.,** sales representative, has been named assistant sales manager. **Robert B. Seidel** has been appointed director of research and product development, which has recently been segregated from general engineering. He was formerly in charge of the research and product development laboratory of Lincoln Electric Company.



Harry W. Jones, Jr.

John M. Pelikan has been appointed sales promotion manager of the **Union Switch & Signal Division** of **Westinghouse Air Brake Company,** at Swissvale, Pa. He was assistant district manager at New York. **John W. Hansen, Jr.,** sales engineer, has been promoted to assistant to vice-president—sales, at Swissvale. **Henry J. Groenendale,** signal engineer, and **W. Robert Fisher,** commercial engineer, have been appointed sales engineers at New York and Swissvale, respectively.

John M. Pelikan

Abandonments

Pennsylvania-Reading Seashore Lines.—This road has asked the I.C.C. for authority to abandon its Stone Harbor branch line, 3.7 miles, in Cape May county, N.J. The road said the application was filed at the request of the county, which already has asked the I.C.C. to authorize the abandonment (*Railway Age*, August 3, page 21). Elimination of the rail line would clear up a grade crossing problem involving the Garden State Parkway.

Authorizations

CHICAGO, BURLINGTON, & QUINCY.—To abandon three incline tracks, together with movable cradles and storage tracks used in handling traffic over the incline, at Metropolis, Ill. No traffic has been handled over the incline during the past three years, the I.C.C. noted.

ERIE.—To abandon a 2-mile segment of branch line located within the city of Youngstown, Ohio. The segment has been used principally for car-storage purposes.

NARRAGANSETT PIER.—To abandon a 2.25-mile segment of its rail line, extending from Rodman's Crossing, R. I., to the end of the line at Narragansett. The I.C.C. noted the "total absence" of traffic over the segment.

New Facilities

Baltimore & Ohio.—The locomotive back shop at Dubois, Pa., discontinued for locomotive repairs last spring, will be converted into a modern freight-car shop capable of making heavy repairs to 20 cars a day. The improved facility will be ready for operation next November and it is hoped the entire reconversion job will be completed in June 1954.

Canadian National.—Early start on construction of a large hotel in Montreal, to cost an estimated $20,000,000, has been announced by Donald Gordon CNR chairman and president. The hotel will be on the southeast corner of Dorchester and Mansfield streets, over what is now the North Plaza of Central Station. It will have public rooms capable of accommodating 2,500 persons at banquets and more than 4,000 at meetings.

Chicago & Western Indiana.—Directors have approved a program of rehabilitation of platforms, tracks, and electrical and service facilities in the 51st Street coach yard at Chicago. The work, which will begin shortly, will cost an estimated $584,000.

Missouri Pacific.—The I.C.C. has authorized this road to construct a 1.5-mile rail segment at Little Rock, Ark. The new line will cost about

$205,000. Primary purpose of the segment is to encourage industrial development of a 65-acre tract known as the Granite Mountain area.

New York City Transit Authority.—Construction of an earth embankment to replace the burned trestle on the former Rockaway branch of the Long Island, sold to the city of New York for $8,500,000, began this month. When the project is completed, in about three years, the authority plans to inaugurate rapid transit service between the city and the Rockaways. Reconstruction of the line and new equipment are expected to cost about $38,000,000, to come from city-provided capital funds. Pending completion of the three-year project, sections of the former LI branch have been leased back to the railroad for operating local trains and service to the Rockaways through Valley Stream.

. . . **By the end of 1954,** the St. Louis-San Francisco will have 40 per cent of its locomotive fleet equipped with two-way radio. In addition, 10 per cent of the road's cabooses will be similarly equipped. Both yard and road engines operate on a frequency of 161.13 megacycles, and road engines can communicate with a terminal from distances up to 15 miles.

Nicholas, Fayette & Greenbrier.—The I.C.C. has authorized this road to construct an 11.9-mile extension from Russellville, W.Va., to a point near Landisburg. The new line, costing an estimated $4,400,000, will provide access to a new coal field where recoverable coal tonnage is believed to be in excess of 85 million tons. Funds for construction will be advanced to the Greenbrier in equal amounts by the New York Central and the Chesapeake & Ohio. These roads are joint owners of the Greenbrier, and have operated the latter since 1929. NYC engineering forces will supervise building of the track. Contract for the construction has been awarded to the Codell Construction Company, Winchester, Ky.

Financial

R.F.C., the Depression Lender, Is Set To Close

Lending operations of the Reconstruction Finance Corporation—an agency which loaned millions to the railroads during its lifetime—will terminate September 28, and the entire agency will be abolished next June 30.

ELEVEN THOUSAND STRONG, they braved intense heat . . .

for a chance to inspect diesel locomotives . . .

and learn how neighbors "keep 'em rolling."

The Erie Holds . . .

OPEN HOUSE AT A DIESEL SHOP

The fact that the thermometer hovered close to 100 in the shade did not deter nearly 11,000 children and adults of Marion, Ohio, and vicinity from attending a recent open house party at the Erie's diesel shop in their city. Hosts were the shop's 352 employees—most of whom live in the community. That their invitation was accepted by one-third of Marion's total population is clear indication that railroading has lost little of its popular appeal.

Erie shop forces, under Superintendent Robert H. Lewis and Master Mechanic Harry J. Phelps, planned the party to last from 9 a.m. to 9 p.m. But it was nearly 10 p.m. before the last visitors could enter the building. Attendance was determined by numbered door prize tickets, but a brief shower in the evening drove many to "crash" other entrances, so not all guests were included in the official count.

After their tour through the shop—which included demonstrations of locomotive maintenance equipment as well as ample opportunity to inspect the locomotives themselves—visitors came upon a refreshment area. Here the intense heat wrought some statistics worthy of note. Consumption totaled 12,000 bottles of cola, 11,000 cups of ice cream, 9,000 "popsicles," 6,000 balloons, and—oddly enough—75 gallons of hot coffee.

Before they left the grounds, visitors were taken on a short trip to the car and locomotive washer in a train made up of a diesel switcher and two open-end gondolas. From this operation the Erie learned the capacity of a gondola —"200 children."

Each visitor received a four-page leaflet describing the shop and how it fits into overall operations of the railroad. Marion shop, it pointed out, was part of the road's $80-million program of conversion to diesel power "now virtually completed." The leaflet also described other Erie operations in Marion (freight classification yards, icing station, Kent division headquarters, car department forces and maintenance of way headquarters). It stressed that all Erie employees "want to earn the reputation of being good neighbors and hometown partners in Marion."

Since its creation late in President Hoover's administration, the R.F.C. made railroad loans approaching $940,000,000. In addition, the agency took over another $200,000,000 in railroad loans from the Public Works Administration.

Today, through repayments and the sale of railroad securities, only about $77,000,000 of the original loans are still outstanding with the R.F.C.

The agency must try to dispose of all its assets before June 30, 1954. Any railroad loans still held by R.F.C. on that date will be turned over to the Treasury Department for administrative handling.

H.R. 5141, signed by President Eisenhower on July 30, provided for the abolition of R.F.C., and at the same time created a new agency, the Small Business Administration. S.B.A. will have authority to make loans up to $150,000.

This elimination of the R.F.C. has been listed by Secretary of Commerce Sinclair Weeks as one of the major accomplishments of the Eisenhower administration.

1953 Trend in Fixed Charges Is Upward

Total fixed charges for Class I railroads have been going up in 1953, according to a study by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.

An article in the "Monthly Comment," the bureau's publication, said fixed charges in the first five months of 1953 amounted to $167.9 million. This compared with $165.7 million for the same period last year.

Income available for fixed charges, meanwhile, has also gone up. For the January-May period of this year, available income was $519.6 million, compared with $435.7 million in the same period of 1952.

Putting it another way, the bureau said income in the 1953 period covered the fixed charges 3.09 times as against 2.63 times in the like 1952 period.

On an annual basis, fixed charges in 1952 were well below what they were in 1939. In the latter year, the railroads were confronted with fixed charges of $607.7 million, and the income available for such charges amounted to only $724.7 million.

For the year 1952, fixed charges were $441.9 million, while the income available to meet the charges was $1.3 billion.

Erie.—*Subsidiary Sells Land to Ford.*—The Ford Motor Company has signed an agreement with an Erie subsidiary, the Erie Land & Improvement Co., to purchase 177 acres of land owned by the railroad at Mahwah, N.J. The biggest plant in the entire Ford division for assembly of Ford passenger cars and trucks will be constructed on the property. The new plant, expected to be completed in two years, will be served exclusively by the Erie, which is proposing to build nearby switching yard facilities for 500 cars. H. W. Von Willer, traffic vice-president of the Erie, who handled negotiations with Ford, said: "According to Ford's present plans, this will be the largest industrial plant ever to locate on the Erie, and should be a big revenue producer for us when it is in full operation."

FOLDING CHAIRS tuck neatly under the lower berth of this double bedroom to provide maximum floor space during nighttime occupancy. Six all-bedroom cars containing this type of accommodation have been delivered to the Illinois Central by the Pullman-Standard Car Manufacturing Company for service on the "Panama Limited" and the "City of Miami."

Securities

Kansas & Missouri.—*Bond Extension.*—The I.C.C. has authorized this road, a subsidiary of the Kansas City Southern, to extend the maturity date of $800,000 of first mortgage 6 per cent bonds. The bonds are owned by KCS.

Authorizations

NEW YORK, CHICAGO & ST. LOUIS.—*Stock Option Plan.*—The I.C.C. has authorized this road to issue 101,750 shares of common stock in connection with a stock option plan for officers and key employees (*Railway Age*, August 3, page 23). The plan won approval from the road's stockholders at a May 19 meeting. It will be administered by a committee from the board of directors, and its purpose is to provide incentive and encourage officers and key employees to remain with the road.

PITTSBURGH & LAKE ERIE.—To assume liability for $3,225,000 of equipment trust certificates, to finance in part 40 diesel units costing an estimated $4,353,500 (*Railway Age*, July 27, page 66). Division 4 approved sale of the certificates for 99.2616 with interest at 3¼ per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds to the road approximately 3.39 per cent. The certificates, dated September 1, will mature in 15 annual installments of $215,000 each, beginning September 1, 1954. They were reoffered to the public at prices yielding from 2.9 to 3.4 per cent, according to maturity.

Dividends Declared

CHESAPEAKE & OHIO.—75¢, quarterly, payable September 21 to holders of record September 1; 3½% preferred, 87½¢, quarterly, payable November 1 to holders of record October 7.

DELAWARE & BOUND BROOK.—50¢, quarterly, payable August 20 to holders of record August 13.

NORFOLK SOUTHERN.—42½¢, quarterly, payable September 15 to holders of record September 1.

PHILADELPHIA, GERMANTOWN & NORRISTOWN.—$1.50, quarterly, payable September 4 to holders of record August 20.

PITTSBURGH & WEST VIRGINIA.—50¢, quarterly, payable September 15 to holders of record August 20.

VIRGINIAN.—62½¢, quarterly, payable September 14 to holders of record September 1; 6% preferred, 37½¢, quarterly, payable November 2, 1953, February 2, 1954, May 3 and August 2, to holders of record, respectively, October 16, 1953, January 15, 1954, April 16 and July 16.

Security Price Averages

	Aug. 18	Prev. Week	Last Year
Average price of 20 representative railway stocks	63.11	64.29	63.38
Average price of 20 representative railway bonds	90.66	90.78	93.37

Railway Officers

EXECUTIVE

E. W. Smoot, Sr., of Washington, D.C., has been appointed to the newly created position of assistant to chairman of the NORFOLK SOUTHERN. Mr. Smoot will head an NS office to be established in Washington in the near future. Mr. Smoot, a native of Utah, is the son of the late Senator Reed Smoot of Utah.

Henry F. McCarthy, vice-president of SEATRAIN LINES, INC., New York, has been elected executive vice-president, effective at once. Mr. McCarthy will continue as head of the traffic department of the company. **Parker**

(*Continued on page 83*)

JAMES T. O'DEA, who will retire as president of the Peoria & Pekin Union September 1 (*Railway Age*, July 13). He will be succeeded by G. J. Willingham, director of personnel of the Illinois Central.

U. P. reflectorizes with

REG. U. S. PAT. OFF.

SCOTCHLITE

BRAND

REFLECTIVE SHEETING

UNION PACIFIC RAILROAD

Reflective striping, emblems, numbers give brilliant nighttime visibility to rolling stock!

LIKE MANY OTHER safety and public relations-conscious railroads, the Union Pacific reflectorizes rolling stock with "Scotchlite" Sheeting. Now at every crossing on the line, emblems . . . numbers . . . striping get full 24 hour a day visibility. Impressive by day, they're *brilliantly beautiful* at night as car headlights illuminate their true, radiant colors.

If you would like more information on railroad reflectorization programs, return the coupon below. There is no obligation, of course.

Easy application

Pre-cut numbers of "Scotchlite" Reflective Sheeting are here being permanently affixed to side of Diesel. Materials require no activating. Hinge method of application assures proper positioning.

REG. U. S. PAT. OFF.

SCOTCHLITE

REFLECTIVE SHEETING

Minnesota Mining & Mfg. Co.
Dept. RA 83
St. Paul 6, Minn.

Please supply me with additional information on railroad reflectorization progams.

Name.....

Company.....

Address.....

City.....

Zone.....State.....

Made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of "Scotch" Brand Pressure-Sensitive Tapes, "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.


205
SOUTHERN
LINES
PACIFIC

Alco-GE Diesels Run 20,000 Trouble-Free Miles Per Month for Texas & New Orleans

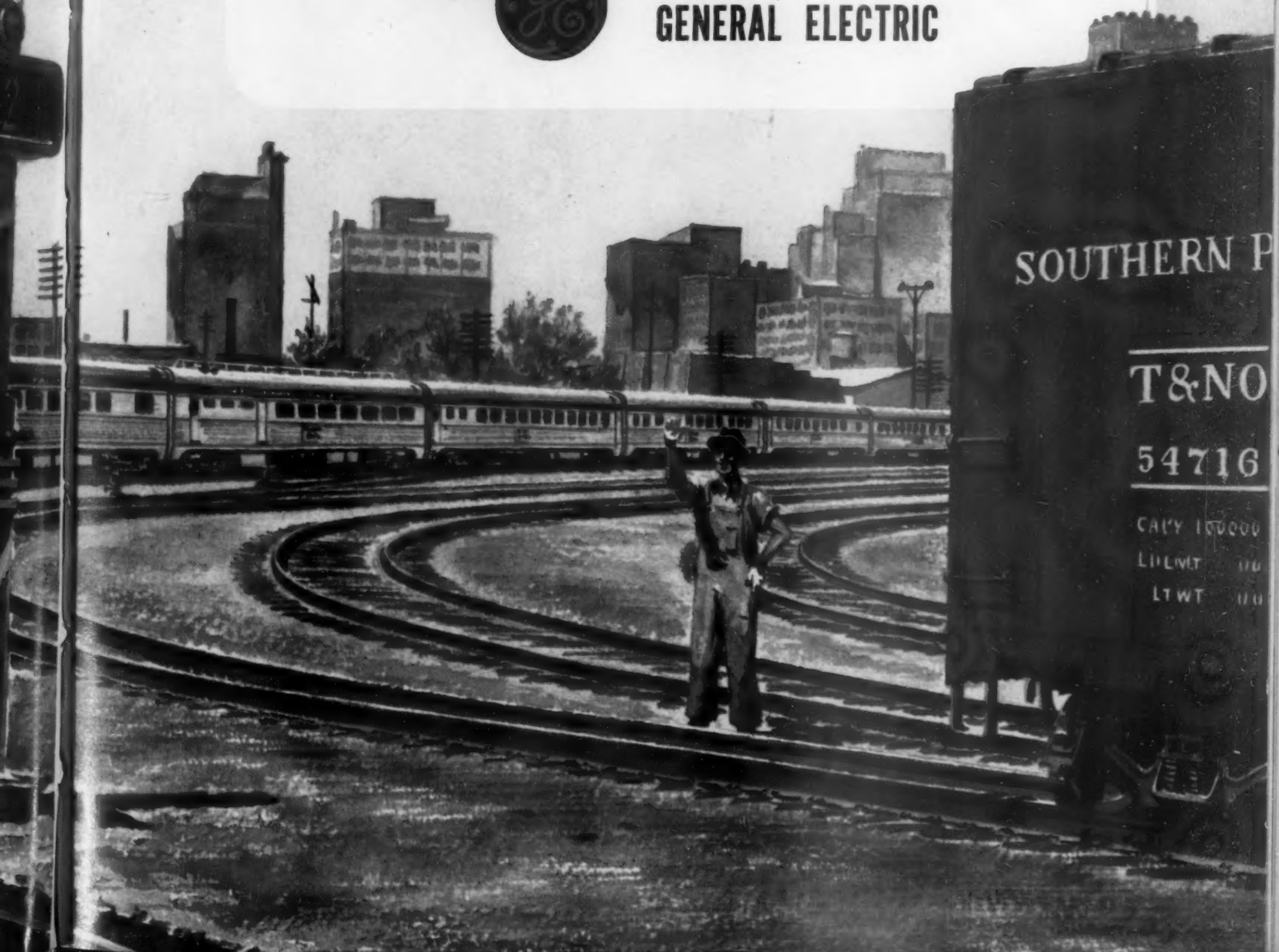
Twenty thousand ***trouble-free*** miles per locomotive per month in heavy-demand passenger service! That's the month-after-month record attained with 4-year-old Alco-GE passenger locomotives by the Texas & New Orleans Railroad of the Southern Pacific System.

Despite this outstanding record of railroading efficiency, the T&NO now is aiming for an even better record—1,250,000 miles of service from its Alco-GE locomotives between overhauls.

Alco-GE locomotives are used on every dieselized train in T&NO passenger service, including the crack SUNSET LIMITED and the mile-a-minute SUNBEAM. Proved performance makes this motive power the logical choice to help maintain the T&NO reputation for comfortable, on-time passenger travel.

Today, Alco-GE diesel-electrics are piling up revenue miles in passenger, freight, and switching service all along the 4,291 miles of T&NO track . . . exemplifying the modern methods and operating know-how of this progressive railroad. 113-310

AMERICAN LOCOMOTIVE
and
GENERAL ELECTRIC



Protection

for cars and lading

WESTINGHOUSE
FRICTION DRAFT GEARS
Certified A. A. R.

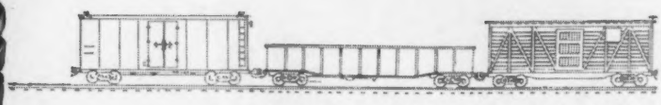
ABSORPTION

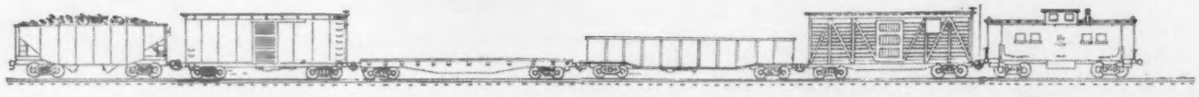
ENDURANCE

CAPACITY

STURDINESS

CARDWELL FRICTION
BOLSTER SPRINGS
Short or Long Travel





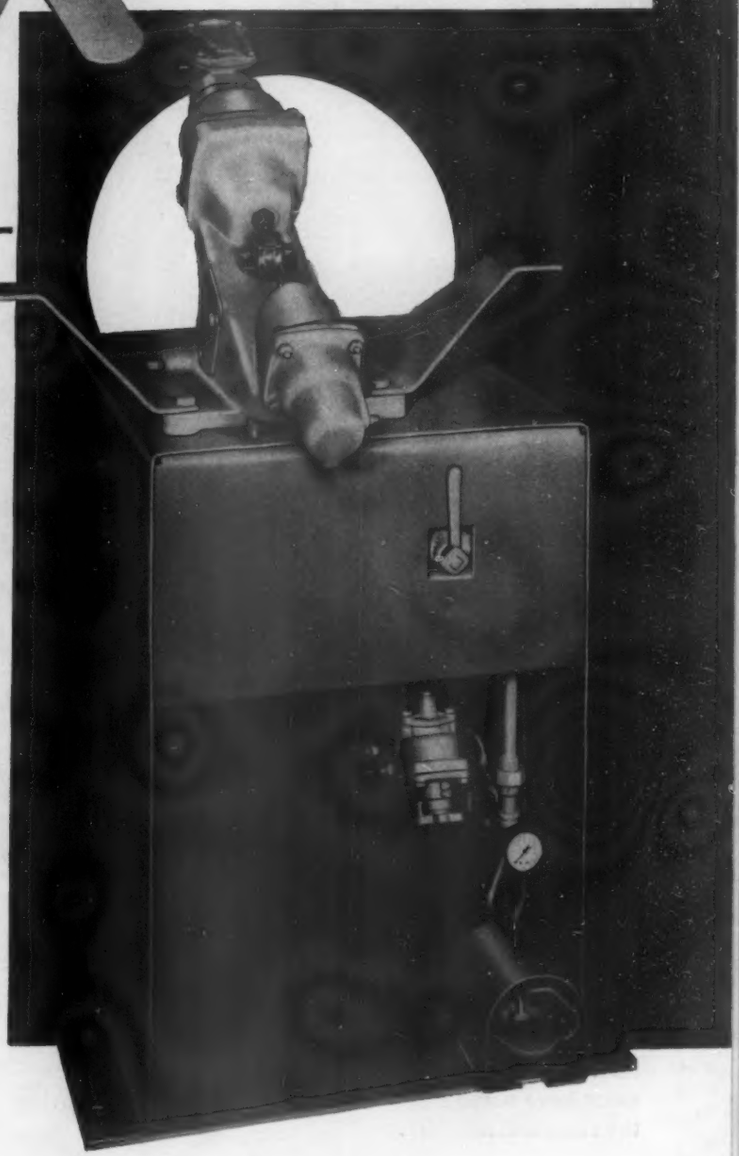
Cardwell Westinghouse Co., Chicago
Canadian Cardwell Co., Ltd., Montreal

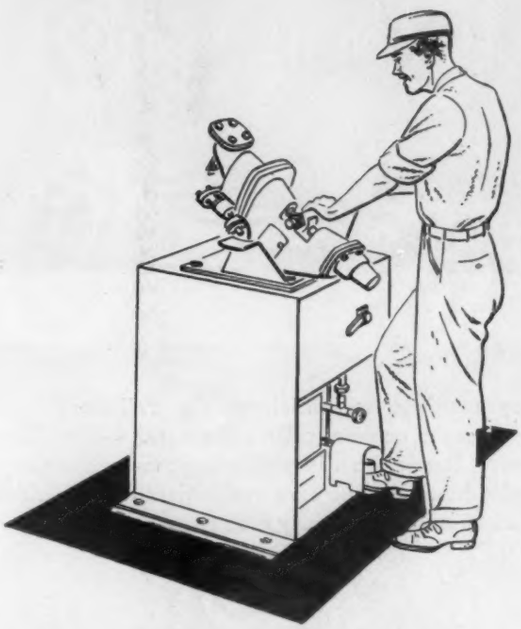
287 P

Apply Punch-Lok Hose Clamps in just 3 seconds

with the

Westinghouse Air Brake B-1 Clamping Machine





HERE is the quickest, and most economical way to apply hose clamps. In one operation, this new device pulls the hose clamp tight, locks it, and shears off the excess metal. Clamp tension is identical on every piece.

It's safe, too. The operator has a clear view of his work at all times because the table is conveniently sloped. And the foot pedal operating valve can be nullified at any point in the cycle, thus stopping the machine.

Get in touch with your Westinghouse Representative and see how easily the new B-1 can speed up production in *your* shop, and give you tighter, more uniform hose clamps.

Westinghouse Air Brake Company

AIR BRAKE DIVISION

WILMERDING, PA.

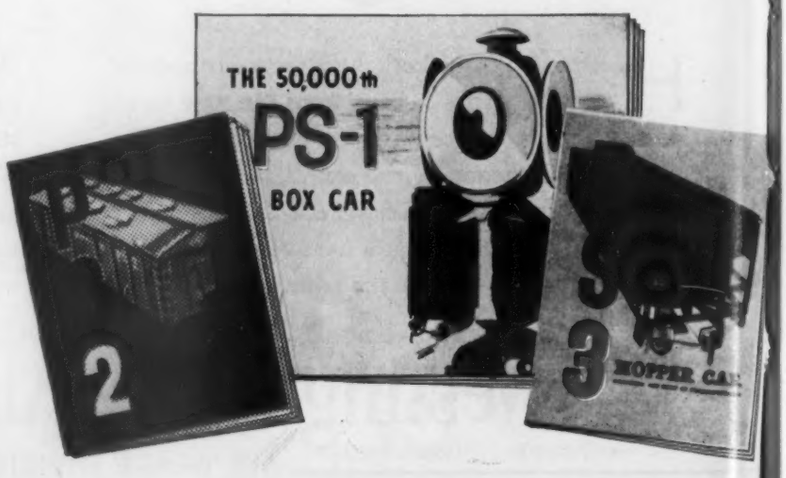
THE PS-1 BOX CAR

① The PS-1 is a good example of the *progressing standard* which is so important in the successful operation of these cars. Pullman-Standard Research and Development engineers have never stopped testing, proving and improving the standardized PS-1.

They continue to anticipate the railroads' needs for better, more economical freight cars. Under laboratory control, Research and Development technicians reproduce service hazards. The cars are subject to conditions more severe than those actually ever encountered.

NEW BOOKLETS

Anyone concerned with Box Cars, Covered Hopper Cars or Hopper Cars will be interested in the facts, specifications and details contained in these illustrated booklets. Write for a copy of any one, or all three.



NOW 3 standardized freight cars

The PS-1 Box Car, the PS-2 Covered Hopper Car and the PS-3 Hopper Car—the results of tested design and continuous production, are standardized in order to produce top-quality freight cars more economically for the railroads.

Their designs are the products of Pullman-Standard's Research and Development engineers—engineers with the experience and resources to not only create but also to test the components and completed cars. Their construction reflects the advantages of continuous production. It makes possible the economies of specialized tools and techniques. Their stamina and continual improvement are influenced by "on-line" checking by Pullman-Standard Sales and Service engineers.

50,000 PS-1's have gone into service for 56 railroads proving that standardized cars are a sound, revenue-building investment.

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

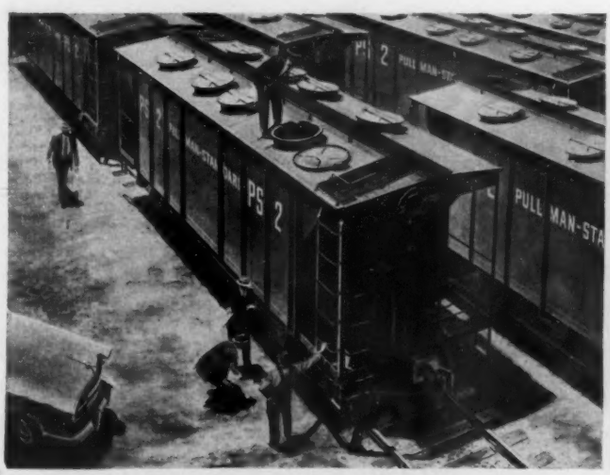
PULLMAN-STANDARD

CAR MANUFACTURING COMPANY

SUBSIDIARY OF PULLMAN INCORPORATED

79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS

BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO, WASHINGTON

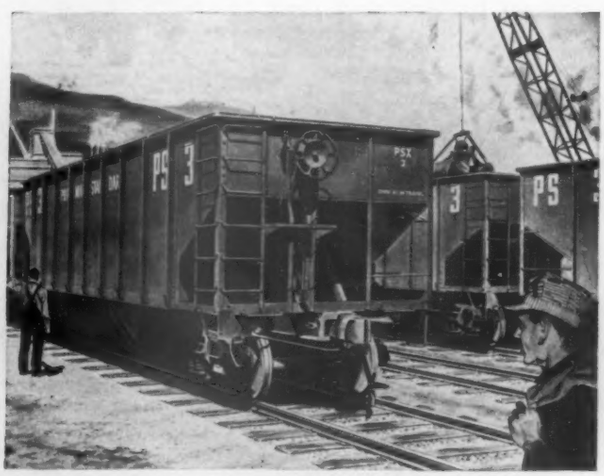


THE PS-2 COVERED HOPPER CAR

② The PS-2 Covered Hopper Car presents another Pullman-Standard achievement in freight-car standardization for dependability and economy.

The design is new. It permits the use of the most modern methods of car construction and production including the extensive use of automatic arc welding.

Besides stronger construction, some of the PS-2's features include: improved circular hatches; smooth self-cleaning hoppers; and a sturdier, safer roof.

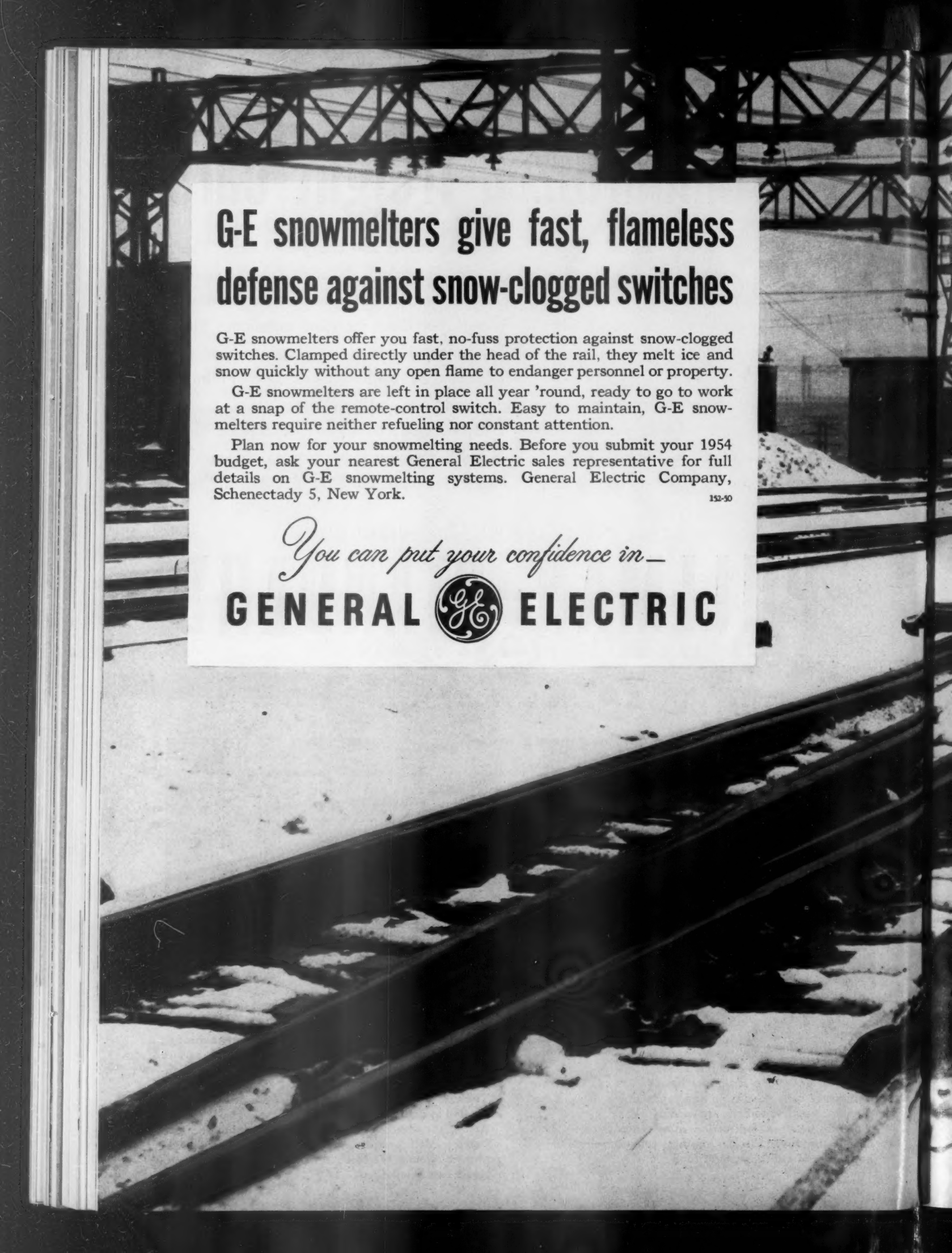


THE PS-3 HOPPER CAR

③ The specifications of the PS-3 resulted from a thorough inspection of virtually every type of Hopper Car in service and from a study of the effects, on the cars, of current handling practices.

The cars were developed to incorporate proven advantages and to omit potential trouble spots.

Among the objectives set for these cars were three which dictated welded construction; maximum strength at all vital points, maximum corrosion resistance, and smooth interiors for fast unloading.



G-E snowmelters give fast, flameless defense against snow-clogged switches

G-E snowmelters offer you fast, no-fuss protection against snow-clogged switches. Clamped directly under the head of the rail, they melt ice and snow quickly without any open flame to endanger personnel or property.

G-E snowmelters are left in place all year 'round, ready to go to work at a snap of the remote-control switch. Easy to maintain, G-E snowmelters require neither refueling nor constant attention.

Plan now for your snowmelting needs. Before you submit your 1954 budget, ask your nearest General Electric sales representative for full details on G-E snowmelting systems. General Electric Company, Schenectady 5, New York.

152-50

You can put your confidence in—

GENERAL ELECTRIC


1878 75 1953
YEARS OF ELECTRICAL PROGRESS

"ASF 1940" 50-ton test car, shown at Hammonton, N. J., where the short-travel coil springs were replaced with Ride-Control Packages for the return trip to Atlantic City.

Another test car in the train—identical with this car—was mounted on ASF Ride-Control Trucks. Both test cars contained specially designed accelerometers for measuring impacts.

An "operations car," with impact-recording instruments, and two passenger cars were located in such a way as to isolate the two test cars from each other and from undesirable influences of the locomotive.

Eliminating a major cause of lading damage—
in 12 minutes or less!

Jack up the car—remove old AAR coil springs . . .

and slip in the self-contained Ride-Control Package.

Car now has the smooth-riding qualities that are possible *with long spring travel . . . controlled by constant friction.*

You reduce lading damage claims when you reduce the lading damage index... and the Atlantic City test runs prove how

ASF Ride-Control Packages cut lading damage index 90% or more!

The ASF Test Train, on its Atlantic City runs, proved conclusively that railroads no longer have to put up with the costly use of hard-riding freight cars.

We're referring, of course, to cars built before ASF Ride-Control® Trucks were first introduced in 1944; cars good for further service, except for the old 1936 short-travel springs that pound the daylights out of the lading, the roadbed and the car itself.

On a typical test run, the "ASF 1940" test car was mounted on short-travel springs for a 28-mile run. Maximum speed was 56 mph. For the *return* trip, the car ran on ASF Ride-Control Packages—*at speeds up to 84 mph.* Here are the actual test results... comparing the riding qualities of the same car carrying the same load on the same track... *with just one quick change in the springing:*

Impact Count—car outbound with short-travel coil springs

10,908	.25G	4894 x 1	—	4,894
6,014	.50G	3631 x 4	—	14,524
2,383	.75G	1667 x 9	—	15,003
716	1.00G	716 x 16	—	11,456
		Lading Damage Index	—	**45,877**

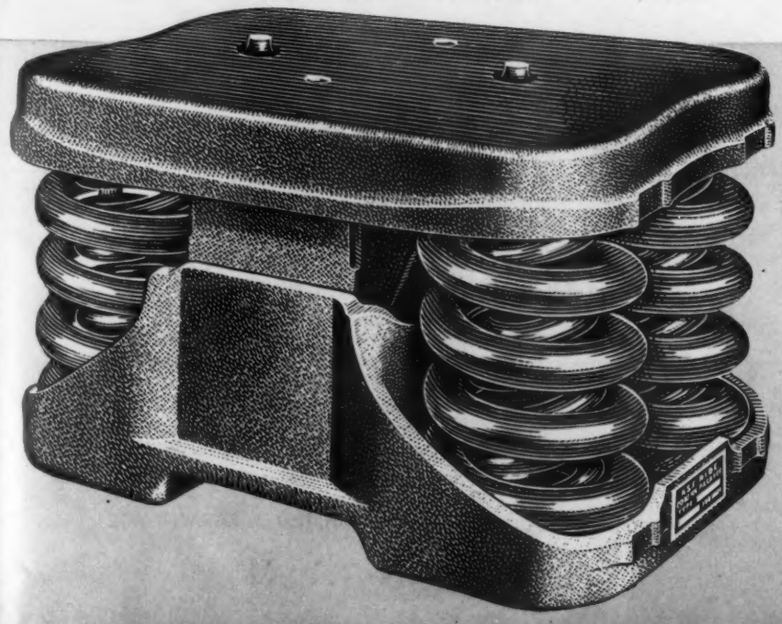
Impact Count—car inbound with ASF Ride-Control Packages

2,699	.25G	2590 x 1	—	2,590
109	.50G	100 x 4	—	400
9	.75G	7 x 9	—	63
2	1.00G	2 x 16	—	32
		Lading Damage Index	—	**3,085**

In short, lading damage index reduced 93% *—even though the Package-equipped car was run at 84 mph.* Eliminate the harmless .25G impacts, and the reduction is almost 100% ... another way of saying that there's hardly any comparison between the "before and after" riding qualities of the same car!

Prove it on your line...specify Ride-Control Packages for your older cars. Watch claims and car maintenance costs go down, while the number of cars available for unrestricted use goes up! Your ASF Representative can give you complete facts.

Bring your old freight cars up to modern riding standards... with the



ASF

RIDE-CONTROL PACKAGE

AMERICAN STEEL FOUNDRIES

410 N. Michigan Avenue, Chicago 11, Illinois

Look for this MINT ◯ MARK on the running gear you specify

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

Ribbonrail Service...

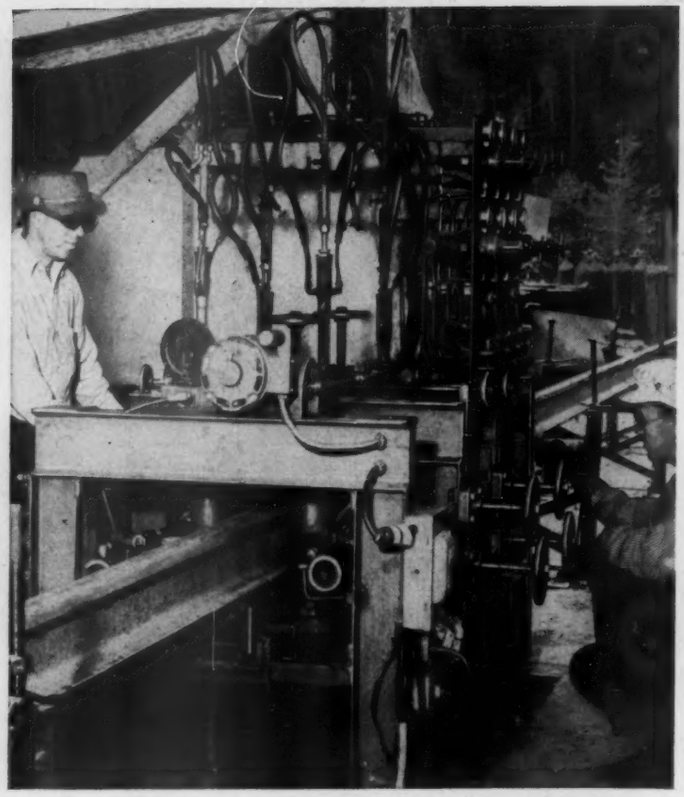
IN YOUR USED RAIL PROGRAM

Will Save You Money

It's poor economy to re-drill cropped rail for re-use in secondary or yard track. When you do that you end up with 300 or more joints per mile — joints that multiply maintenance expense.

Many railroads are cutting maintenance costs by using OXWELD's RIBBONRAIL Service and equipment to make used rail into continuous welded rail — for use in secondary locations. The multiple lengths save you money. Here's how:

Put your used rail into a RIBBONRAIL Service program and save money. Ask OXWELD for more information.



RIBBONRAIL Service at work — an OXWELD pressure-welding machine quickly produces continuous rail.

Cropping battered ends of used rail prepares the rail for welding . . . the same equipment used for new rail performs this operation.

The cropped rail ends are welcome in the scrap drive . . . You help the national defense effort, and get a premium price for the scrap.

RIBBONRAIL needs no joint maintenance since there are no joints.

Used rail lasts longer when it becomes RIBBONRAIL . . . there are no ends to batter, no joints to wear.

OXWELD RAILROAD SERVICE COMPANY
A Division of Union Carbide and Carbon Corporation
UCC
Carbide and Carbon Building Chicago and New York
In Canada:
Canadian Railroad Service Company, Limited, Toronto

"Ribbonrail" is a service mark, and "Oxweld" is a trade-mark of Union Carbide and Carbon Corporation.

1,500 more 70-ton hoppers

THIS IS ONE of the Duluth-Missabe line's new 70-ton hoppers which will roll on U·S·S Multiple-Wear Wrought Steel Wheels . . . masters of distance. 250 more 70-ton hopper cars now on order will also feature these dependable wheels and U·S·S Cor-Ten steel bodies. The ability of U·S·S Wrought Steel Wheels to deliver long-mileage service makes them a perfect match for extra-rugged hopper car bodies of Cor-Ten steel.

U·S·S WROUGHT STEEL WHEELS

One-Wear Freight Car Wheels
Multiple-Wear Freight Car Wheels
Passenger Car Wheels

Diesel Locomotive Wheels
Steam Locomotive Wheels
Electric Locomotive Wheels

Tender Truck Wheels
Electric Transit Wheels
Crane Track Wheels

built for the years ahead...

These heavy haulers of the
DULUTH, MISSABE & IRON RANGE RAILWAY COMPANY
roll on mile-eating

U·S·S Multiple-Wear Wrought Steel Wheels

THE wheels of the 1,500 70-ton hopper cars recently built for the Duluth, Missabe & Iron Range Railway Company can be counted on to give the longest possible service at the lowest cost. They're U·S·S Multiple-Wear Wrought Steel Wheels . . . famous for their resistance to wear while covering many miles.

U·S·S Multiple-Wear Wrought Steel Wheels are *built* for rugged service . . . built to click off the miles. Each step in the production of these superior, long-mileage wheels is carefully controlled to assure a finished product with utmost resistance to stresses of heavy braking action and impacts at high speeds. All along the line the most modern wheel making techniques are employed . . . and improved upon.

There are two strategically-located wheel shops to fill your orders for U·S·S Wrought Steel Wheels promptly and efficiently—one at McKees Rocks (Pittsburgh), Pennsylvania, to service the East and Southeast, and the other at Gary, Indiana, to supply Western and Southern lines. No other manufacturer of wrought steel wheels can offer such service.

Whether you're buying wheels for new high-duty equipment or for replacement, the next time you order specify U·S·S Multiple-Wear Wrought Steel Wheels. They have proved their ability to deliver *more ton-miles per dollar* than any other type wheel!

UNITED STATES STEEL CORPORATION, PITTSBURGH, PA. · COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. · UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS

U·S·S WROUGHT STEEL *High-Duty* WHEELS

UNITED STATES STEEL

SERVICE PIN... for you, too

Chances are you've seen this pin. It represents 20 years of service with Socony-Vacuum. The average length of service of all our representatives calling on railroads is well above this figure. All this petroleum experience—the world's greatest—is yours when you call in Socony-Vacuum. Why accept anything less?

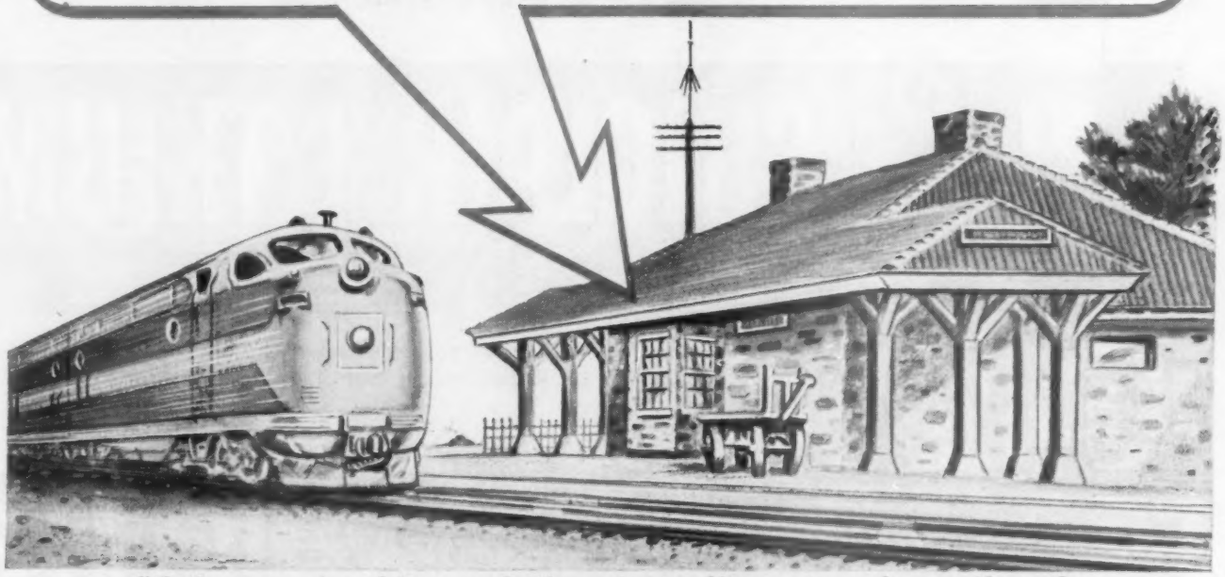
Socony-Vacuum Railroad Lubricants *Correct Lubrication*

WORLD'S GREATEST LUBRICATION KNOWLEDGE AND ENGINEERING SERVICE

SOCONY-VACUUM OIL COMPANY, INC., RAILROAD DIVISION, 26 BROADWAY, NEW YORK 4, N. Y.

IT'S JOE'S DAY OFF...BUT

...train messages still go through when the way station is closed!



#8 feature in this revolutionary radio system for railroads

The station is closed . . . but the transmitter and receiver are on "standby."

Another operator or the dispatcher is connected with the closed way station by phone lines. He can send radio messages through the way station by remote control.

Inside the way station the radio receiver is always on standby. Thus a conductor or trainman can talk to operators or the dispatcher through the unattended way station.

Here's how it works

By two way radio operators or the dispatcher and train crew can talk to each other any time directly or through attended or unattended wayside stations. The conductor in the caboose can talk to his engineer. There can be instant voice contact from one train to another. Bendix CRC permits instantaneous supervision and control of train movement.

What it accomplishes

With Bendix Centralized Radio Control, breakdowns and emergencies are immediately made known. Longer freights move faster with fewer accidents to rolling stock. Single tracks can handle larger volume both ways. Better "meets" and changes of "meets" are possible. Unscheduled stops seeking information are eliminated. Knowing locations, conditions and speed of trains eliminates delays at interlocking plants, or when entering and departing yards. And there are a host of other time-saving reasons.

Send for the free Bendix booklet that gives you even more facts why so many railroad managements, seeking new sources of revenue, are enthusiastic over the potential and actual economies of instant radio control between trains, wayside stations and division headquarters.

BENDIX* RADIO
BALTIMORE 4, MARYLAND
A DIVISION OF BENDIX AVIATION CORPORATION
EXPORT SALES: Bendix International Division
205 E. 42nd St. New York 17, N.Y., U.S.A.

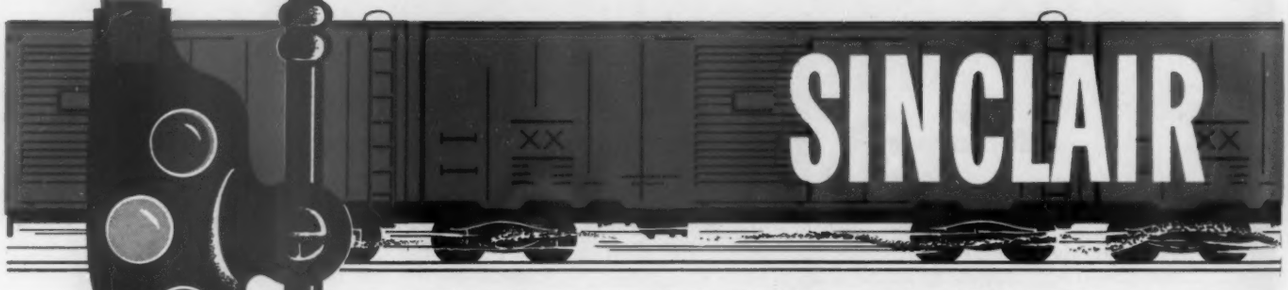
* Reg. U.S. Pat. Off.

Bendix C·R·C centralized radio control

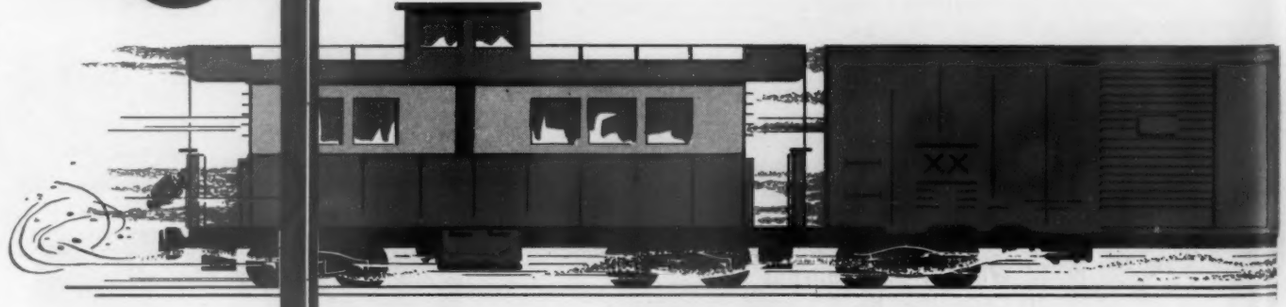
Bendix THE MOST TRUSTED NAME IN Radio

Today, more than 90 U. S. railroads prefer Sinclair GASCON® OILS. Only a tried, tested and outstanding oil could make and *keep* a record such as this.

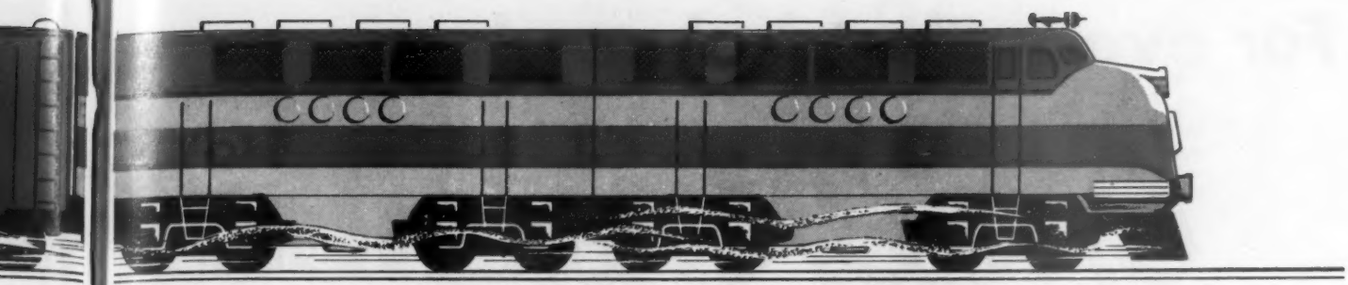
Something new and already proved superior for Diesel locomotive and car journal bearing lubrication.



Three years of extensive testing have proved JET to be unsurpassed for heavy-duty work in Diesel traction motor gears.



Only Sinclair Diesel Fuel contains the amazing rust inhibitor RD-119®. Used regularly, it effectively *stops* damaging rust and corrosion in fuel systems.



ROLLER BEARING GREASE

JET LUBRICANT TM

SINCLAIR DIESEL FUEL

SINCLAIR RAILROAD LUBRICANTS
...for Superior Diesel Performance

SINCLAIR REFINING COMPANY • RAILWAY SALES • NEW YORK • CHICAGO • ST. LOUIS • HOUSTON

Now a Reality...

System Lubrication

with

RAIL & FLANGE LUBERS

The Proved, Positive Accepted Way to Lubricate

- **FLANGES**
- **SWITCH POINTS**
- **FROGS**
- **HIGH RAILS**

Rail & Flange Luber. Ruggedly built to rigid railroad requirements. Trouble-free and easy to service.

Positive Application. Graphite coated chain deposits controlled layer of lubricant on flange.

Protection. Rails, frogs, switchpoints, locomotive and car wheel flanges—all protected by a lasting coat of lubricant through SYSTEM LUBRICATION.

Rail & Flange lubers assure SYSTEM LUBRICATION by automatically and mechanically applying a controlled layer of graphited lubricant to flanges of locomotive drive wheels—without spill, without slippage. Graphited lubricant is then automatically transferred from flanges to pressure sides of rails, frogs, switch points and rubbed into pores of the steel. Following wheel flanges of locomotive and cars pick up lubricant and are protected with positive lubrication...*from Flange to Rail—from Rail to Flange.*

With SYSTEM LUBRICATION, you eliminate "dry" steel and save thousands of dollars on flange and track maintenance.

Equip your locomotives with Rail & Flange Lubers—tested, proved, and endorsed. Cut operating costs with SYSTEM LUBRICATION.

RAIL & FLANGE LUBRICATOR CO.
2784 N. W. Thurman St., Portland 10, Oregon

See System Lubrication with Rail & Flange Lubers in a 3-Dimension View-Master presentation

RAIL & FLANGE LUBRICATOR CO., DEPT. RA
2784 N. W. Thurman Street, Portland 10, Oregon

We are interested in SYSTEM LUBRICATION as a means to cutting operating costs, increasing tonnage capacity, reducing "dry" steel wear, cutting derailments.

☐ We'd like to have your brochure giving us specific details and specifications.
☐ We'd like to see your "3-D" picture presentation.

Signed_____

Position_____

Railroad_____

Address_____

City_____ State_____

MORTON

Vestibule Curtains have stood every test for 50 years!

. . . a complete line to meet every need — including yours

CHECK THESE FEATURES

- **ROLLERS.** Long, strong spring of toughest spring steel. Roller barrel of cold-rolled steel tubing, welded and swaged. Available in adjustable and non-adjustable types, grooved or plain, with or without snap-button holes. Painted.
- **CURTAIN MATERIAL.** Any designated type of material or color can be provided.
- **HANDLES.** Designed for easy application to, or removal from, curtain rod. Release handles supplied if specified.
- **REVOLVING SHIELD and CASING** (illustrated at right). When opened, it gives quick access for installation or repair; when in normal closed position, it presents an attractive appearance.
- **SNAP-BUTTON FEATURE.** Should cars be uncoupled before curtain is unhooked, the snap buttons which hold curtain to roller become disengaged by the extra "pull," preventing damage to curtain. Buttons are easily re-snapped to roller.
- **HOOKS.** Malleable curtain hooks (single, double or roller type) can be furnished to any specification.
- **BRACKETS.** Various types of brackets of simplified design available for any condition of application.

A. Morton Vestibule Curtain outfit.
B. Revolving shield and casing (shield open).
C. Revolving shield and casing (shield closed).

When you buy vestibule curtains for passenger trains, *by all means specify* MORTON *Vestibule Curtains!*

MORTON
MANUFACTURING COMPANY
5125 West Lake Street, Chicago 44, Illinois

MAKERS OF: OPEN-GRIP RUNNING BOARDS AND BRAKE STEPS • KASS SAFETY TREAD • VESTIBULE DIAPHRAGMS AND CURTAINS • METAL DOORS • STEEL FLOORING...AND A WIDE LINE OF PRODUCTS FOR RAILROAD USE

For high standards of performance

you can rely on EDISON

DEPENDABLE POWER has always been a major characteristic of EDISON batteries in meeting today's heavy passenger-train demands for air-conditioning, car-lighting and growing electrical service needs.

ELECTRICALLY FOOLPROOF, EDISON batteries can safely be maintained in a high state of charge thus reducing the need for yard charging. They have no prescribed discharge limits thus increasing the effective operating reserve, especially when self-regulating inversion equipment is employed.

MOST ECONOMICAL, TOO—as the operating records of America's both large and small roads bear out. For example, on many roads, EDISON batteries have given an average service life of *18 to 25 years.*

There are more reasons why EDISON batteries enjoy railroad preference—all-steel cell container and plate design provides rugged stamina for typical railroad operations . . . this same EDISON steel cell construction reduces weight—up to 2000 pounds per car . . . and EDISON batteries successfully meet temperature extremes; withstand the overcharging and overdischarging often incidental to railway car service. Before selecting your next passenger car battery, be sure you have the latest, proven facts on EDISON battery operation . . . write today for Bulletin SB 3208 and the name of your nearest Edison Field Engineer. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, New Jersey.

Most Dependable Power—
Lowest Over-all Cost
***... you get both with an* EDISON**

EDISON
Nickel · Iron · Alkaline
STORAGE BATTERIES

MET-L-WOOD
METAL BONDED TO PLYWOOD

VERSATILITY
FOR MODERN CAR INTERIORS

Met-L-Wood walls provide a smooth, luxurious finish in addition to saving weight and simplifying construction.

MET-L-WOOD passenger car partitions, doors and paneling not only produce beautiful finished surfaces, but can also save up to 73%* in weight and a substantial amount of construction time. Shown at left, and described below are typical Met-L-Wood construction details. Full information on Met-L-Wood versatility in new or rebuilt cars will be furnished promptly on request. Write today.

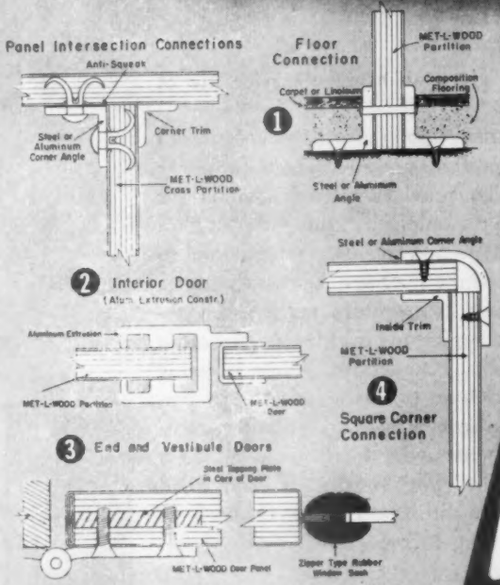
1 Panel intersections with Met-L-Wood can be made invisible from outside with the use of split rivets. Floor connections may be made in a variety of ways, one of which is shown here, using through-rivets and metal screws.

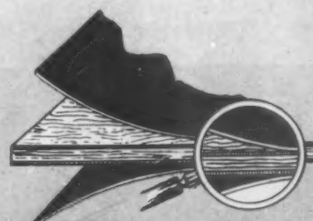
2 Interior doors of Met-L-Wood can be fitted with aluminum extrusion door stops; or the Met-L-Wood partition formed so that the door stop is an integral part of the panel.

3 Steel tapping plate inserts can be put in Met-L-Wood doors at proper places for solidly anchoring hinges and door-opening devices. Note simplicity of using zipper-type window sash with pre-formed Met-L-Wood window openings.

4 Square or rounded corners are made with Met-L-Wood panels and steel or aluminum corner forms. Corner forms can also be fastened with split rivets or through-rivets, as well as with wood or metal screws.

**Met-L-Wood panels 3/8" thick, with steel both sides, have a stiffness factor exceeding that of 1/4" solid steel plate, while weighing only 27% as much as steel!*

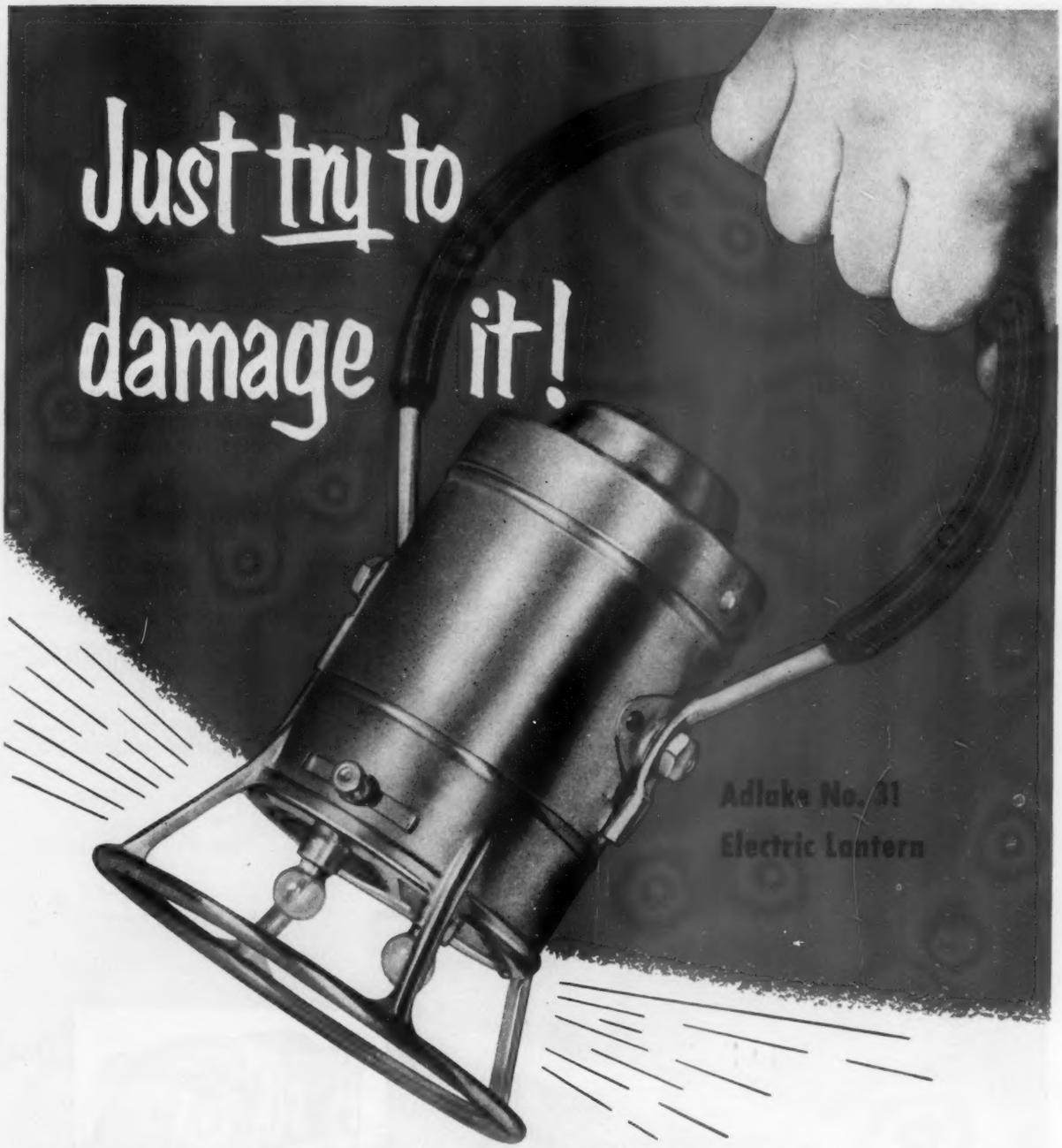




MET-L-WOOD CORPORATION

6755 West 65th Street, Chicago 38, Illinois

MET-L-WOOD • *STRONG... LIGHT... Smooth Finish... Sound Deadening... Fire-Resisting... Insulating*



Here's the sturdiest, most dependable electric lantern ever! Just look at these *plus* features: A sturdy, one-piece bottom guard protects bulbs from damage . . . an always-bright signal is assured by the large, highly-polished reflector . . . and the positive switch permits a quick change from long-range train signal to the bright spot for car number reading.

What's more, a corrugated-rubber-covered bail provides a sure safe, grip at all times . . . and finally, spare bulbs are carried under the lantern cover.

The ADLAKE No. 31 lantern is the result of almost a century of manufacturing for the railroads of America. This experience, plus the assured satisfaction that has always gone with the ADLAKE name, is your best guarantee of lasting dependability.

For complete information, send a card requesting Bulletin B-105A to The Adams & Westlake Company, 1150 N. Michigan, Elkhart, Indiana. No obligation, of course.

Adlake 96th year of serving the transportation and building industries

THE Adams & Westlake COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago

Manufacturers of ADLAKE Specialties and Equipment for the Railway Industry

All because of a HOT BOX!

How many times a day does the flagman on one of your trains go behind the last car to warn oncoming trains of a delay caused by a hotbox? Probably too many times . . . resulting in needless expense and delayed deliveries.

Working together with railroad operating executives, SKF Engineers have developed the SKF **FREIGHTER** Roller Bearing for freight cars. Service tests prove *they eliminate the hot box problem.*

They're called **FREIGHTER** Roller Bearings because they improve rail freight movement in these 8 important ways:

- 1st of EIGHT — Maximum safety— eliminates hot box problem.
- 2nd of EIGHT — Better riding qualities— less lading damage.
- 3rd of EIGHT — Minimum wear of wheels and truck parts.
- 4th of EIGHT — Low lubricating cost.
- 5th of EIGHT — Long bearing life.
- 6th of EIGHT — Easy installation. No adjustments at assembly.
- 7th of EIGHT — Adaptability to proposed AAR standards.
- 8th of EIGHT — Best overall economy.

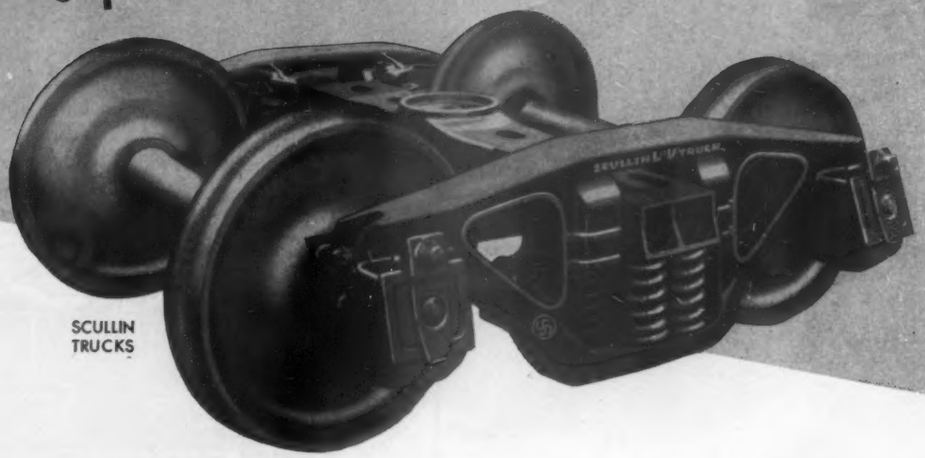
7445

When you're ready to equip your freight cars with anti-friction bearings for more return on your investment, remember one important name— SKF **FREIGHTER** Roller Bearings —made by the manufacturer with the world's broadest experience in the application of anti-friction bearings to passenger and freight cars, and motive power.

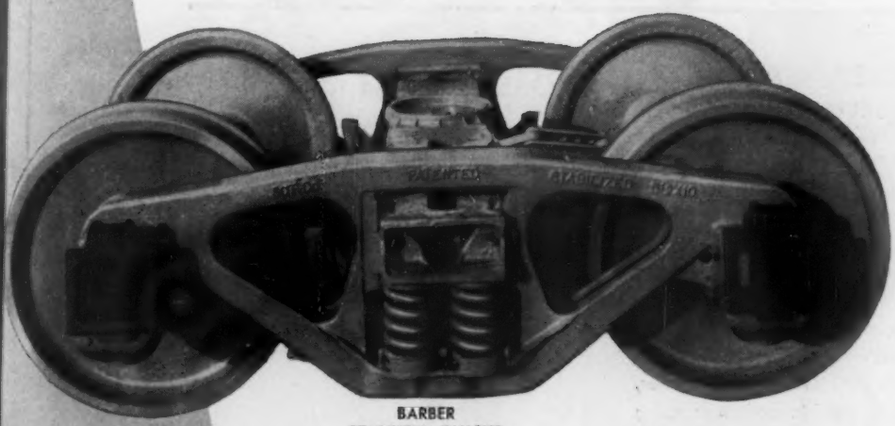
SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.— *manufacturers of* SKF *and* HESS-BRIGHT *bearings.*

SKF®
ROLLER BEARING JOURNAL BOXES

FREIGHT CAR MASTERPIECES
High Speed Trucks



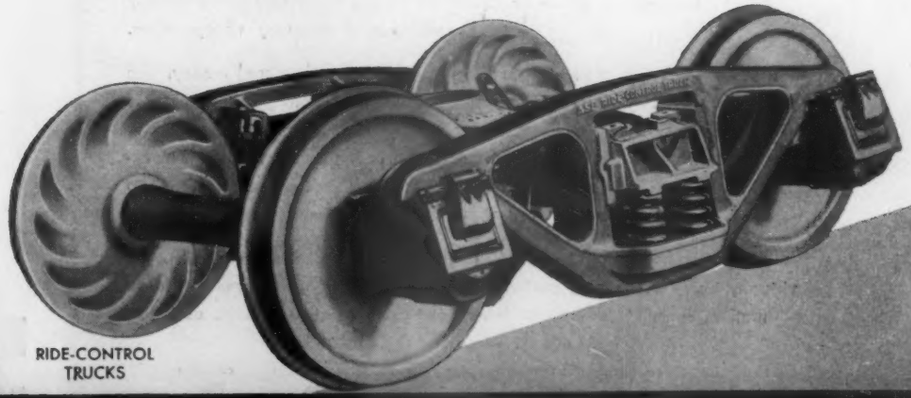
SCULLIN TRUCKS



BARBER STABILIZED TRUCKS

SCULLIN TRUCKS

Truck Side Frames and Truck Bolsters Produced by Scullin Steel Co.



RIDE-CONTROL TRUCKS

STEEL CASTINGS MANUFACTURER

NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

SCULLIN STEEL CO.

SAINT LOUIS 10, MISSOURI

NEW ARITHMETIC
FOR COST-MINDED EXECUTIVES

1 + 1 = 1 BROWNHOIST
(SWITCH ENGINE) (LOCOMOTIVE-CRANE) DIESEL ELECTRIC LOCOMOTIVE-CRANE

Many railroads, steel mills and manufacturing plants have long been familiar with the powerful, efficient performance of Brownhoist Diesel Electric Locomotive-Cranes in handling bulk materials with magnet, hook or bucket. Brownhoist Cranes also perform equally well as switch engines because they are built with a specially designed travel generator, motor and axle reduction unit — the same equipment used in modern switching locomotives to provide high tractive power and rapid acceleration. These two dependable pieces of equipment in one husky unit mean greater versatility and economy of operation.

Brownhoist Cranes save you man hours, production time and money. The patented Monitor Type Cab and Clear-Vision Boom give the operator unlimited visibility in all directions and help him turn out a greater volume of work in less time. Sound, rugged construction plus a simplified mechanism and easy accessibility to all moving parts help keep maintenance and repair costs low.

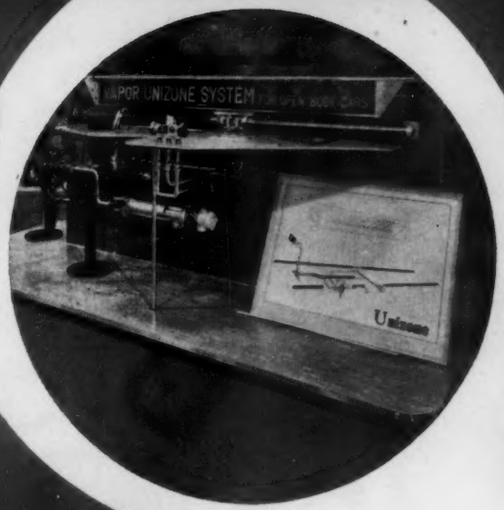
Brownhoist Cranes are built in capacities from 25 tons to 80 tons for virtually every heavy duty materials handling operation. For complete information, consult your nearest Brownhoist representative or write us today.

INDUSTRIAL BROWNHOIST CORPORATION • BAY CITY, MICHIGAN

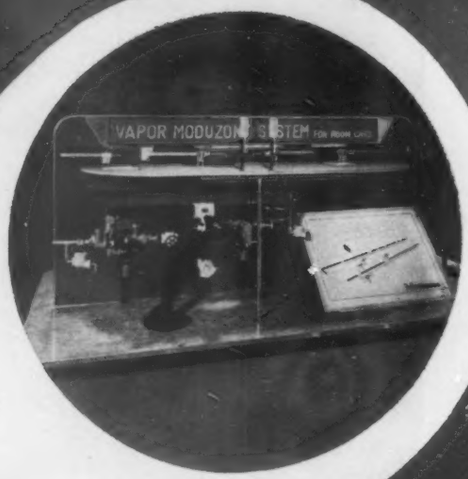
DISTRICT OFFICES: New York, Philadelphia, Cleveland, San Francisco, Chicago; Canadian Brownhoist, Ltd., Montreal, Quebec • **AGENCIES:** Detroit, Birmingham, Houston, Los Angeles

BROWNHOIST
BUILDS BETTER CRANES

166



INTERESTED RAILROADERS by the hundreds made Vapor's "2-minute test" of Unizone Regulator replacement. Conveniently located beneath car floor, it's the single unit in which all steam-flow control is concentrated.



better controls

AND THEY SAW FOR THEMSELVES how the Moduzone System eliminates expensive room-thermostats, yet provides fully automatic control subject to each room occupant's setting selection.

One of the busiest corners at the Atlantic City Convention was this Vapor display of better controls, including the Unizone and Moduzone Systems that are truly beyond comparison.

It was an exhibit of broad coverage and bright cutaways which told the whole story of bedrock costs—a demonstration of bold creativeness with results that belie contradiction.

Vapor's background of concentration on railroad requirements brings convenience, boosts comfort builds confidence. Whenever Vapor equipment is specified, buyers can always be certain.

THIS WAS A COMPLETE DISPLAY of popular Vapor units—the Hot Water Heater for Diesel protection and emergency heating; the Vapor-Clarkson Steam Generator for heating Diesel-powered trains; the Overhead Heater for baggage and mail cars; the Immersion-Type Hot Water Heater; Flexible Conduit; End Valves; etc. Vapor believes in its products!

VAPOR HEATING CORPORATION 80 EAST JACKSON BLVD. • CHICAGO 4, ILLINOIS

NEW YORK • ST. PAUL • DENVER • ST. LOUIS • ATLANTA • WASHINGTON • PHILADELPHIA • SAN FRANCISCO • JACKSONVILLE • RICHMOND • HOUSTON • MONTREAL • LOS ANGELES

Railroad & Car Material

STRINGERS, CAPS AND SILLS
IN DENSE SHORTLEAF PINE

•

SWITCH TIES IN OAK AND GUM

•

OAK FREIGHT CAR STOCK AND
TIMBERS

•

CREOSOTED & WOLMANIZED*
TREATED STOCK

•

POWER LOAD HERCULIFT PALLETS

WOLMANIZED BRAND ALT PRESSURE-TREATED LUMBER

CROSSETT LUMBER COMPANY PERPETUAL SOURCE of FOREST PRODUCTS

* *Reg. U. S. Pat. Off.*

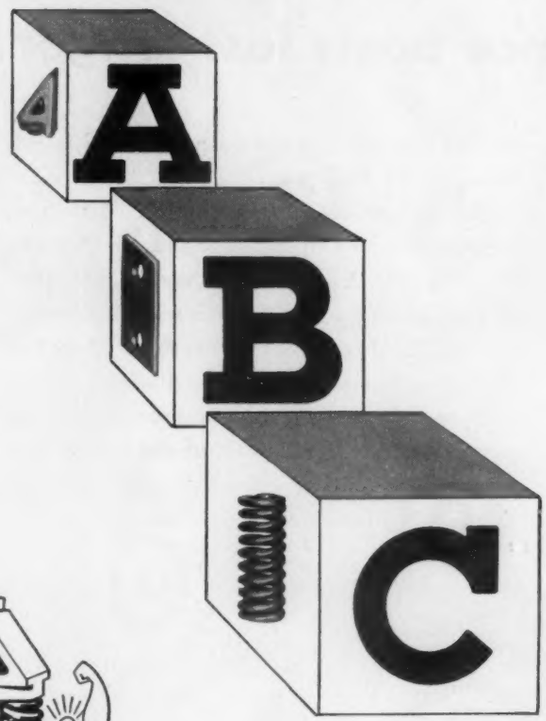
CROSSETT LUMBER COMPANY CROSSETT ARKANSAS

ASSEMBLY as easy as

No matter which type of Barber Stabilized Trucks you use, you will be delighted with the extreme ease of Assembling, Dismantling and Servicing.

This is because Barber Stabilizer parts are freed when the bolster is raised off the springs. Barber, the Pioneer of easy-riding trucks, has always used the fewest possible number of working parts, each of great strength and durability.

This exceptional Ease-of-handling is one of the reasons that over 330,000 car sets of Barber Stabilized Trucks have been specified.

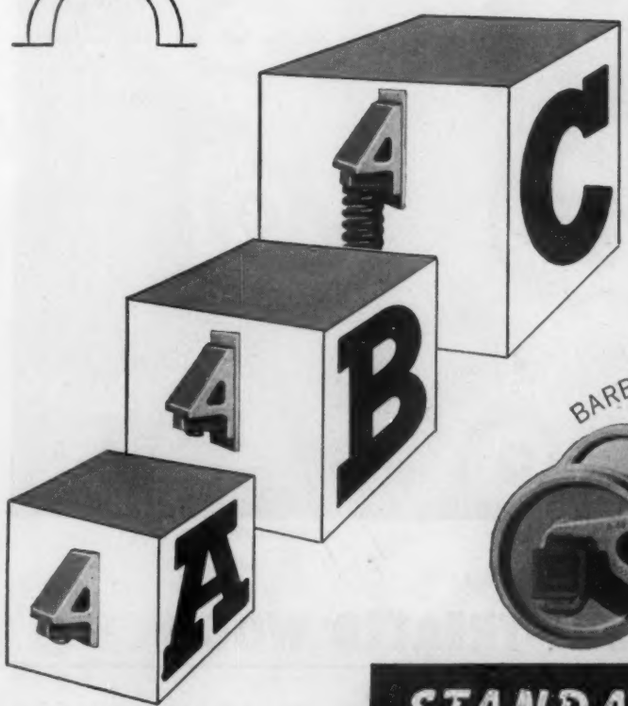


Barber Side Springs carry part of the load, thus increasing capacity.

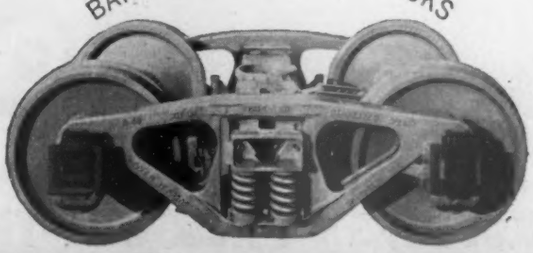
A Special Heat-Treated Alloy-Iron friction casting having 35 inches of friction-bearing surface.

B *Spring-steel* wear plate securely bolted or welded to the column.

C Friction-casting-supporting side-spring having a minimum ¾" initial compression.



BARBER STABILIZED TRUCKS



STANDARD CAR TRUCK COMPANY
332 SOUTH MICHIGAN AVE. CHICAGO, ILL.

Controlled Tests Prove

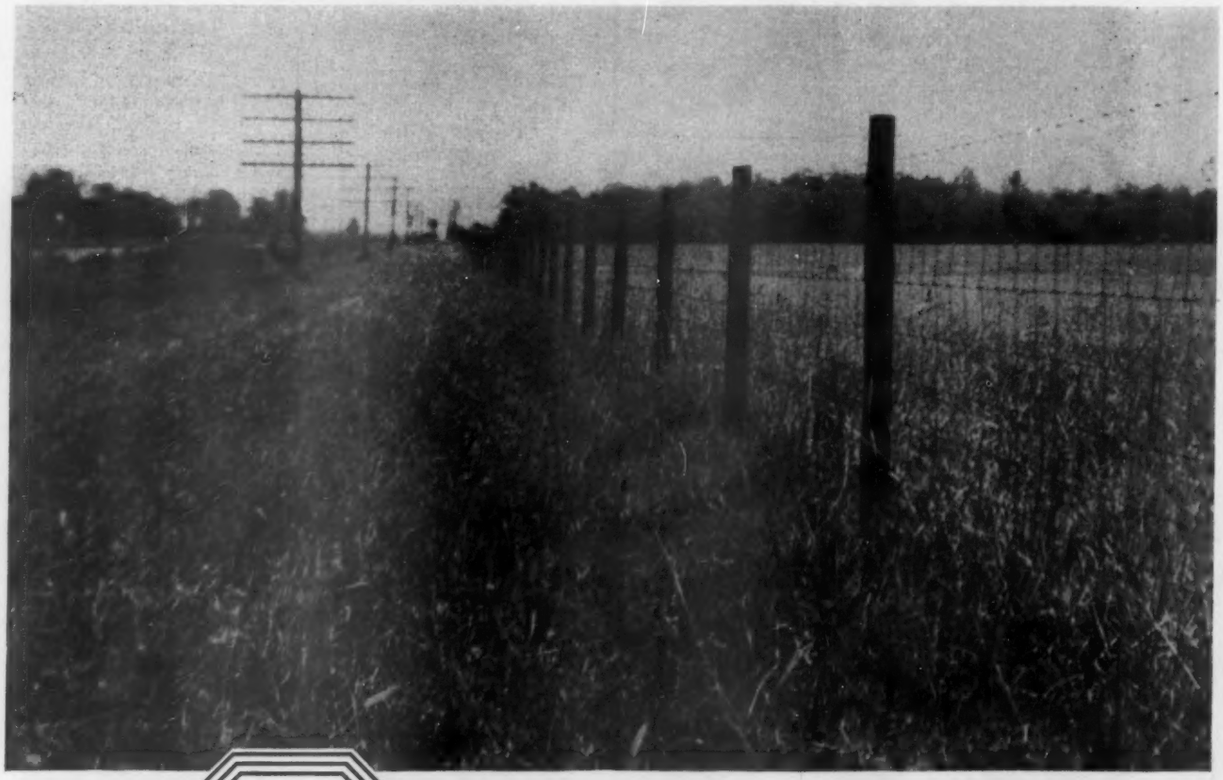
Pressure-creosoted fence posts last longer!

● In 1925 the *Chesapeake and Ohio Railway* made a test installation of treated and untreated wood fence posts, along with a number of steel fence posts. Yearly reports were kept on the test fence. The 1943 Report showed that, after 18 years, almost 90 percent of the untreated posts and about 35 percent of the steel posts had needed replacement. *All* of the creosote treated posts, however, were found to be in good condition with no renewals necessary.

After 24 years, the 1949 Report indicated that the pressure-creosoted posts were still good, and probably possessed another 20 years of service life. By this time, ALL of the other posts had failed, including the steel posts.

The *Missouri-Kansas-Texas* set up a 1000-post, pressure-creosoted right-of-way fence at Denison, Texas in 1922. A careful inspection in 1948, after 26 years of service, showed that many more years of usage could be expected from them. There had been no replacements in this installation.

These are facts. Pressure-treatment with Koppers creosote will add years to the life of your posts, poles, and ties. Specify Koppers pressure-treated wood from the first—to last!



KOPPERS **PRESSURE-TREATED WOOD**

KOPPERS COMPANY, INC. • Wood Preserving Division
Pittsburgh 19, Pennsylvania

more tonnage

..FASTER

The higher ton-miles per train-hour planned for tomorrow's symbol trains *are being scheduled now* behind the newest in motive power—the Fairbanks-Morse Train Master.

Designed around the compact 2400-horsepower Opposed-Piston Diesel Engine, Train Master combines highest pulling capacity . . . largest dynamic brake capacity . . . largest fuel capacity and maximum of all supplies . . . of any single engine diesel locomotive on the rails today.

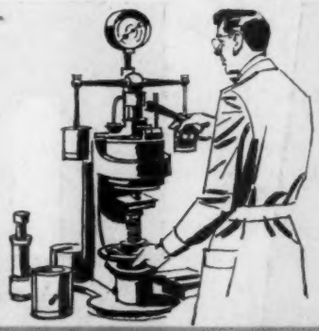
Now demonstrating on more than 10,000 miles of important main lines, the Train Master is proving its many operating advantages in freight, passenger and yard service.

TM . . . the symbol for Train Master . . . the most useful locomotive ever built. Fairbanks, Morse & Co., Chicago 5, Ill.

FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS



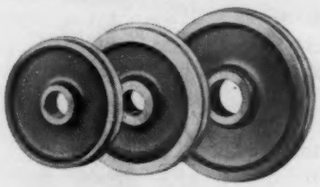
Rigidly controlled

Heat treating processes

increase the service life

of **Edgewater** ROLLED STEEL **Wheels**

Makers of Rolled Steel Wheels



Draft Gears and Rolled Steel Tires

At Edgewater Steel, the art and science of heat treating have been highly developed, as they apply to the manufacture of car and locomotive rolled steel wheels. Many years of experience have guided Edgewater engineers and metallurgists in improving the heat treating process which increases the strength and ductility so essential to longer service life and increased safety.

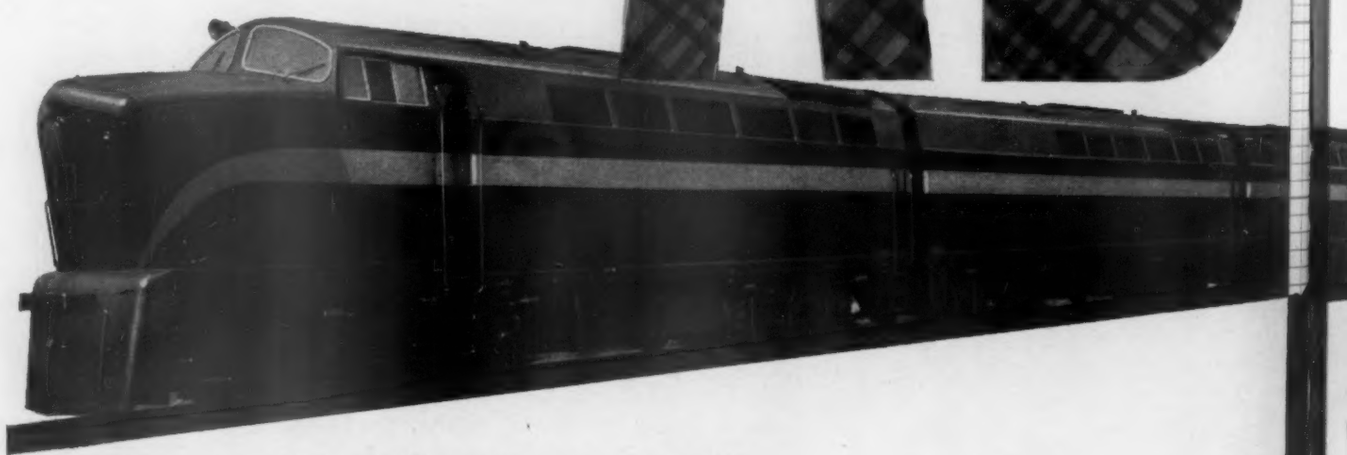
The heat treating process at Edgewater is closely controlled so that dependable uniformity results.

E **Edgewater Steel Company**

P. O. BOX 478 PITTSBURGH 30, PENNA.

The design of thrifty Baldwins is as simple as AB

This simplification of design shows how Baldwin-Westinghouse diesels are engineered for lower maintenance costs . . . They have 5 to 15% fewer diesel engine and electrical control system parts than other locomotives of comparable capacity. This can mean less wear, fewer replacements, lower maintenance costs, fewer service delays and higher availability.

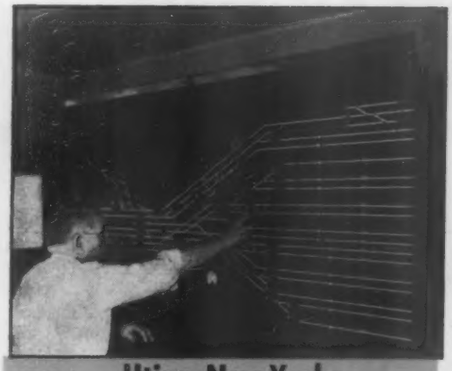


Six Reasons Why Baldwins Are Thrifty

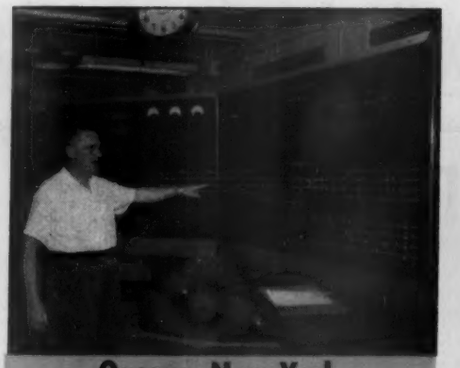
1. Baldwins give as much as 8% more miles per gallon of fuel.
2. They consume up to 33⅓% less lube oil.
3. 5 to 15% fewer diesel engine and electrical parts decrease wear, replacements, and maintenance costs, and increase availability.
4. The Baldwin system of dynamic braking has braking capacity which exceeds that found in the majority of today's locomotives—in some cases by as much as 50%—meaning less wheel and brake shoe wear, better control.
5. They have the weight and controls that can increase hauling capacity up to 3 additional freight cars in the tough assignments.
6. Standardizing on Baldwin renewal parts ensures finer quality and service for trouble-free performance and peak availability.

G·R·S NX (eNtrance - eXit) INTERLOCKING

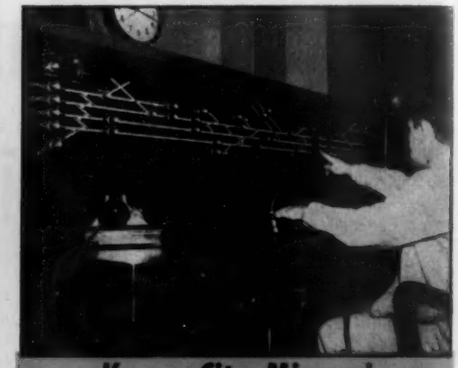
simplifies train directing at . . .



Utica, New York



Queens, New York



Kansas City, Missouri

Johannesburg, So. Africa

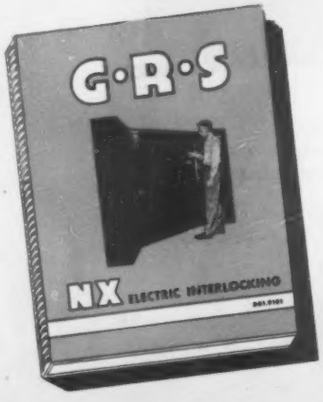
Mexico City, Mexico

's Hertogenbosch, Neth.

Winnipeg, Manitoba

Houston, Texas

Fostoria, Ohio



. . . and at many other interlockings.

NX operation is simple.

Push an entrance knob and an exit button on the control panel to line up any route.

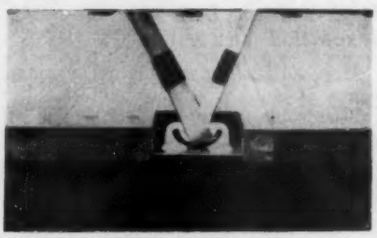
For a complete description write for publication D01.9101.

GENERAL RAILWAY SIGNAL COMPANY

New York 17 Chicago 3 ROCHESTER 2, N.Y. St. Louis 1 A-2643

What's New in Products

AVAILABILITY OF HOTEL SPACE can be ascertained quickly by travelers arriving at Denver's Stapleton Airfield by looking at this "Reserve-A-Room" board, connected with reservation desks of downtown hotels by leased telephone lines. By using specially equipped control boxes, the reservation clerk at each hotel can post on the board automatically the availability of space at his hotel—indicating the number of single or double rooms available as of any given moment. A telephone connected with the board enables interested passengers to make on-the-spot reservations. Operators of this board—Reserv-A-Room, Inc., of Denver—are reported to be considering similar installations for railroad stations.



Lading Strap Anchor For Flat Cars

Designed to accommodate strapping from 1¼ to 2 inches wide at any angle through 120 deg. is a new lading strap anchor for flat cars announced by the MacLean-Fogg Lock Nut Company. The new anchor will accommodate two straps at a time and it may also be used with wire, cable or any combination of these strapping materials. The wide base section is said to provide a welding area sufficient to secure twice the holding power of a 2-in. strap. The design of the anchor is such that the strapping gets full bearing at any angle without buckling •

Temperature Indicator

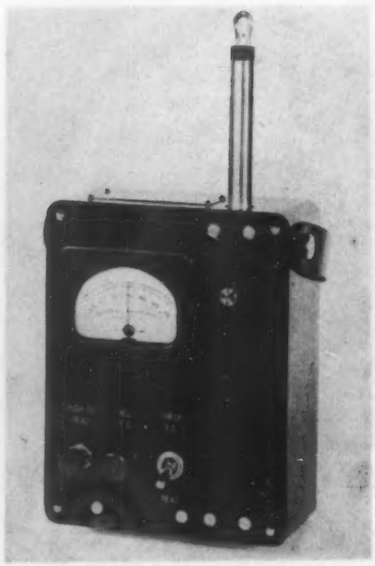
Response to temperature changes in two seconds or less is obtained with Model 328 Fastherm temperature indicator manufactured by Associated Research, Inc., Chicago 18.

Originally designed for checking heating and air conditioning efficiency in railroad passenger cars, Fastherm is a self-contained battery-powered electrical bridge type indicating thermometer.

High response speed has led to other applications where temperatures other than ambient must be indicated quickly.

The sensing element is a thermistor, mounted in a protective cage at the end of a retractable prod. When in operating position, the prod extends approximately 4 in. above the top of the instrument case. Retracted, the prod and thermistor are entirely within the case.

Temperature readings are made on a 2-in. meter with an accuracy of 3 per cent of full scale. The standard model range is from 60 deg. F. to 90 deg. F. Other ranges are available from 20 deg. F. to 220 deg. F.



Two standard flashlight cells power the instrument. The weight of the instrument, with batteries, is approximately 2½ lb. Dimensions of the Bakelite case are: 4 in. wide, 5 in. high and 1½ in. deep •

New Rubber Film

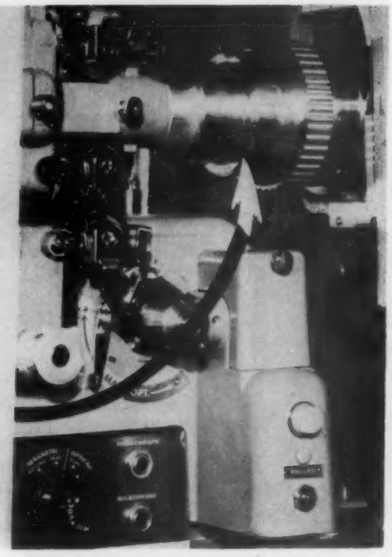
A new rubber film which combines properties of plastics and man-made rubber and can be electronically sealed to itself has been announced by the B. F. Goodrich Company. Called "Vulcafilm," the new material permits assembly of shapes or vessels of any size with fused, homogeneous seams throughout. The electronically "welded" seams are said to become stronger than the material itself, and cementing or taping seams is not required.

Principal use of "Vulcafilm" so far has been in manufacture of oil tank diaphragms developed and sold by the Hammond Iron Works, Warren, Pa. "Vulcafilm" diaphragms virtually eliminate evaporation from stored petroleum products, sealing the product in and sealing air out so evaporation and filling losses cannot take place •

"Wide Screen" Shows With 16-mm. Films

The latest improvement in motion pictures—wide screen vision—is now available at comparatively low cost to users of 16-mm. sound motion picture equipment. The Bell & Howell Co., Chicago 45, recently demonstrated the equipment to the National Audio-Visual

ONE LENS—placed first on the camera . . .



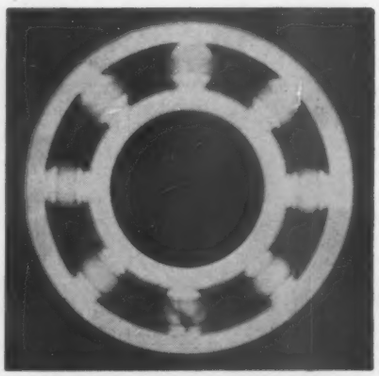
. . . and then on the projector, permits "wide screen" shows.

Association. It features a single anamorphic or "squeeze" lens which is used both to take pictures with the camera and to show them with the projector. The large picture is of normal brilliance and fills a curved screen 2.5 times as wide as it is high. This expanse nearly covers the normal field of vision of the human eye. The peripheral, or side, as well as the "straight ahead" vision of the viewer is brought into play and a strong sense of depth and participation in the scene is created without use of special glasses.

The curved screen used in the demonstration was made of a new fabric to provide uniform brilliance.

Illusion is heightened by three-dimensional — or stereophonic — sound which emanates from the part of the screen where the action takes place. For this latter feature, slight modifications of the company's magnetic recording projector (*Railway Age*, March 31, 1952) were required to allow two different sound tracks to be recorded side by side. The sound is played through two separate amplifier systems with loudspeakers placed at opposite ends of the screen.

It is anticipated that the new wide screen technique will prove useful for both travel promotion and instructional films •



Gamma Ray Machine

An inexpensive means of examining castings and other metal parts, and for making non-destructive tests of weldments, are provided by a gamma ray machine now being marketed by Gamma Industries, Inc., Baton Rouge, La.

Cobalt-60 isotopes obtained from the Atomic Energy Commission are the source of the gamma rays and the pictures of the parts being explored are made on Eastman X-ray film. The machines are made in two sizes, the larger one having about 10 times the penetrating power of the smaller one.

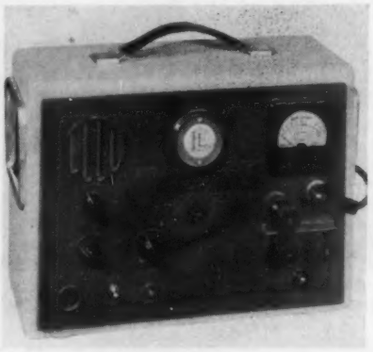
Isotopes are picked up and dropped into the machine with a set of tongs with a long handle, and after the machine is loaded with the isotope, the operator can stand close behind the machine and work it. The smaller machine is about one foot high and weighs 36 lb.

Making a gammagraph of a steel casting 9 in. thick with the smaller machine would take 5 or 6 hours. With the larger machine it can be done in 30 to 40 minutes. The life of Cobalt-60 makes it practical to use it for from 2½ years to 5 years in the machine. It has been used in railroad shops for a great variety of applications. One illustration is a gammagraph of a traction motor armature bearing. The other shows the two machines •

Shunts for Traction Motor Brushes

National Carbon Company, a division of Union Carbide & Carbon Corp., has developed a fray resisting shunt cable, Type FP, for diesel-electric traction motor brushes, which is claimed to have many times the fatigue life of previous brush shunt cables and has been proved in service to reduce cable failures to a minute fraction of the brushes in service.

The cable will be combined with the National permanently sealed shunt connection and will be furnished on standardized brushes for all locomotives •



High-Voltage D.C. Insulation Tester

High-voltage d.c. insulation testing, which is being given consideration by railroads for testing insulation of locomotive traction motors and generators, can be accomplished by means of an instrument called the English Electric Insulation Tester being distributed by Herman H. Sticht Company, New York.

It is a portable instrument which will measure insulation resistance at any desired d.c. potential from 500 to 10,000 volts. It provides an aural indication of the a.c. components of leakage or ionization component through the insulation being tested. The high-voltage d.c. test potential is obtained by rectifying and smoothing the output from a step-up air-core high frequency transformer which is energized by a valve oscillator. The technique limits the d.c. short-circuit output to half a milliampere to render the output harmless to the insulation. The tester is housed in an aluminum case which measures 15 in. by 10½ in. by 6 in. •

Benchmarks and Yardsticks

THE RAILROADS, probably, are not any worse afflicted than most other businesses with the prevalence of extravagant adverse criticism, inside the business, of its authoritative leaders. But nobody can question that careless criticism—which omits the victim's virtues, while magnifying his faults—is an unmitigated evil, wherever it goes on.

Under a dictatorship, a man in authority gets nothing but praise—whatever his shortcomings may be. Under political freedom, the tendency appears to be just the opposite—to give the fellow in authority a pull downward, whenever opportunity offers and whether he merits it or not.

Nobody is perfect. No trainmaster, no superintendent, no s.m.p., no g.f.a., no engineer m. of w., no v-p., no president is a paragon in his job. But neither is the least competent holder of any of these offices wholly imperfect, either. The very fact that a man attains such a position is, in itself, evidence that some responsible people believed he had some qualifications for it. It isn't healthy for any imperfect incumbent in a position of responsibility to be treated as beyond criticism—but, in plain fairness and in the interest of accuracy, should not anyone who takes it upon himself to proclaim a colleague's faults also make some mention of his positive attributes at the same time?

The derogation of reputations would not be such a harmful process, if it were done in the open—with the victim given a chance to refute the charges, if untrue, or—if true—then to recite some of his offsetting virtues. Under such circumstances, the hearers of criticism could judge objectively as to the merits and demerits of the person being discussed.

The usefulness and influence of many good men is much less than it should be, as a result of this practice. But that isn't the whole of the damage—perhaps not even the half of it. As much or more harm comes to the utterer of such careless derogation—which, usually, is not malicious. Indeed, it may be honestly believed; and, at worst, the motive may be nothing more than the urge to get off some derogatory witticism. The critic's purpose is often not so much to harm somebody as it is to arouse admiration for his own insight and adroitness in characterization.

Not many of us are wholly guiltless of yielding at some time or another to the urge to be clever at someone's expense, not always justly.

The point is that derogation is habit-forming. It grows by practice. And it is a practice which, as it grows, progressively undermines the usefulness and integrity of the practitioner. It injures the offender as much as it does his victims—perhaps even more.

J.G.L.

All about 6 G's *

New test device reveals facts nobody knew

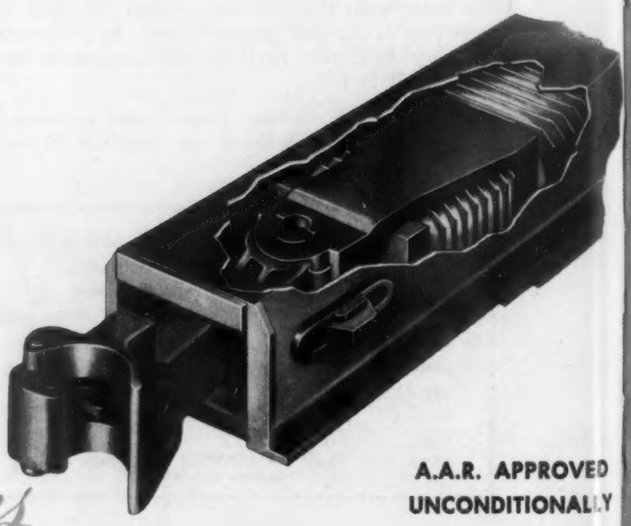
* "G", the unit of change in velocity which is equal to the pull of gravity or 32.2 feet per second per second.

This new test device, the Waugh-Gould Coupler Dynamometer, provides the first accurate means of measuring coupler forces and reveals for the first time the stress rises that occur under car impact in 100ths of seconds

With this new test instrument it has been possible, for the first time, to measure the rate of stress rise or "G" changes for cars under impact...to discover exactly how Twin Cushions 'take the bite out of impact.' The reason shown is this: Rate of stress rise for Twin Cushion is *far* less than for conventional gears indicating a corresponding shock reduction. It's the shock of impact that damages lading. As proved by the Dynamometer, Twin Cushions greatly reduce that shock. So, for shock reduction, for lading protection,

for "G" control...Specify

WAUGHMAT



TRADE MARK REGISTERED *Twin Cushions*

A.A.R. APPROVED UNCONDITIONALLY

WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal

British Railways Are Free to Compete

In the recently enacted British legislation calling for sale of government owned for-hire truck lines to private operators, the government owned railways were given almost complete freedom to compete with truck operations. That is to say, the railways (if their government management so desires) may now charge different rates to different customers, and they do not have to make public their actual (contract) rates with particular shippers. As Professor Gilbert Walker of the University of Birmingham* expresses it:

"Under the new dispensation the Commission [the top administrative authority of government operated transportation enterprises] will be free if they choose to give each of their station agents, not a public ratebook [i.e., public file of tariffs], but in strict confidence a list of the least costs at which the railway can afford to carry the classes of traffic accepted at that station to the destinations which the railway is prepared to serve. Agents could then be urged to canvass for all the business they can get at any rate above these costs. Each rate would be the subject of a separate and private negotiation, and by way of encouragement, the agent might be paid a bonus depending upon the amount of traffic brought in and the excess of the actual rate over that unadvertised least cost."

Whether the authorities who manage the railways will actually be as energetic in going out after business as the new law permits them to be remains, of course, to be seen. But if they do not compete vigorously with the highway carriers (including private carriers), it will not be because of regulatory limitation. The regulators (the Railway Rates Tribunal) have authority to establish only maximum rates and these, as Professor Walker points out, should be sufficiently high to prove compensatory under "circumstances least favorable to the carrier." In other words, the maximum rates should be high enough to prevent the shipper of unattractive freight under conditions of high cost from getting such service from the railways at less than cost, while the railways will be empowered to go far below these maximum rates in order to hold onto traffic with especially attractive cost characteristics.

Professor Walker recalls that the British Transport Commission in its report for 1950 presented comparative figures of the costs of carrying passengers by bus and rail. The average cost by bus was 1/2d. (0.583 cent) per passenger-mile and the average bus rate 1d. (1.166 cents) per passenger-mile. On the railways, the cost was 1/3d. (0.389 cent) per passenger-mile by main-line express, 1s. 2d. (16.332 cents) by local train, and 2s.1d. (29.166 cents) on branch lines. The actual railway rate was 1-3/4d. (2.039 cents) per passenger-mile—that is, the rail rate has been "averaged up" to cover unprofitable services, and the traffic-getting cost advantage of main-line rail service (1/3d. by rail as against 1/2d. by bus) has been neglected.

The result, as Professor Walker reports, has been that long-haul buses are full and long-haul trains run below capacity. The railways get patronage "only of those to whom time is of real value, and of those unfortunates who have not been able to get a seat on the bus or are burdened with heavy luggage." Under the new principles which now dominate the railways, the carriers would now, presumably, increase their short-haul charges to cover costs and—if patronage at such rates vanished, as probably it would—they would discontinue such services. Meantime, they would use their cost advantage to the full in competing with buses for long-haul business.

Similar comparative cost figures for short-haul, small-quantity freight service—in contrast with long-haul transportation in volume—have not been revealed but, probably, they would follow a pattern resembling that of the passenger service. As Professor Walker says:

"Railway rates are high relative to costs when costs are low, and low relative to costs when costs are high. The road hauliers . . . charge a rate computed not as the average of all the business they do, but a charge estimated from the cost of carrying the particular class of goods to be forwarded to the destination desired. . . .The principle of arriving at the rate by averaging the costs might have served the interests of the public in a market in which . . . transport was monopolized. . .but it will not and it cannot work in a transport market in which the transporter, on whom is imposed the obligation of charging a rate computed from the average of all costs, is in any way exposed to competition from other transporters not so bound."

Professor Walker foresees—if the railways vigorously pursue their advantage as the law now permits them to do—that they "will drive the road hauliers away from main traffic routes, except for those special traffics for which road haulage has a distinct advantage in service or in some particular element in costs, away from the heavy flows and the long distances, away in fact from their present field of operations." In other words, the shipping public will actually get the benefit of the "inherent advantages" of railway service—which heretofore have been denied them by the "averaging out"

*In an article in the March 1953 issue of Oxford Economic Papers. The editor's thanks to Economist W. G. Scott of the Railway Association of Canada for calling the article to our attention.

process which permitted and required the railways to charge rates which were below costs on a lot of traffic which could be moved more economically by highway.

A further result of the railways' limiting their services to locations and traffic where they have a cost advantage will likely be a large-scale withdrawal of railway service from areas in the country where traffic is insufficient to justify continuance. If there are reasons other than economic ones why public transportation should be provided in locations where the traffic will not support the service, then Professor Walker's opinion is that "an outright public subsidy is the only solution." He adds that these services are already subsidized, but the subsidy is falling on the users of economic railway service—who are paying more for transportation than they should. If such subsidies are necessary, they should fall on the country as a whole and not on railway patrons who are already paying in full for the services they are getting.

It has been somewhat the fashion on this side of the Atlantic, in recent years, to attribute at least some taint of decadence to the British realm and its institutions. Such attribution was not hard to document from the record of the recent Socialist government, now happily in the discard. But not all Britons are corrupted by socialist unrealism. Certainly Professor Walker's analysis shows that British brains in the area of transportation analysis are a long way from exhausted. And Professor Walker could not have written as he did unless British public opinion and British legislation had given him something constructive to write about.

Imperfect Merchandising

The last of the fleet of special trains to and from the National Boy Scout Jamboree in Santa Ana, Cal., rolled to a stop only a week or so ago. This was a most unusual peacetime movement—involving 27,000 boy scouts and their leaders, carried in 75 special trains. Most of these trains covered well over 4,000 miles before returning home. It was the kind of movement which is a "natural" for the railroads, because neither the air nor bus industries have the necessary capacity, and it was an exceptional opportunity for the railroads to "sell themselves" to future customers.

The opportunity was not fully utilized. Some of the scouts and their leaders returned home less than enthusiastic about their railroad ride—and this in spite of the fact that, as an operating achievement, the movement was praiseworthy.

These 75 special trains required 479 coaches (211 non-air-conditioned), 176 sleepers, 146 baggage cars, and (at one time or another) about 158 meal cars—all at the peak of the summer tourist season when passenger travel is at its height and there is little idle equipment. Furthermore, these trains were handled without interference to regular trains, or to several large military and other movements which coincided with the Jamboree dates. On the western roads, where the impact of the scout trains was greatest, the move came when many seasonal freight movements—such as green perishables and lumber—were near their peak.

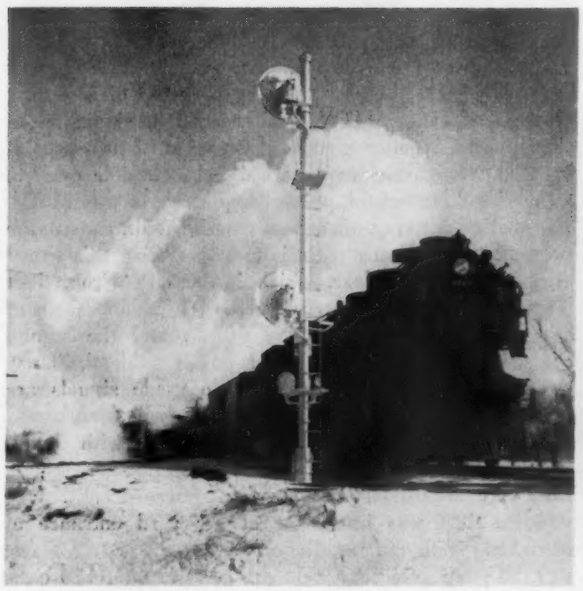
Where dissatisfaction arose, it stemmed primarily from failure (not everywhere—but anywhere was too much) to consider adequately the interests of the scouts as human beings. Some railroads showed high-level imagination in this sphere—others less. But only one or two untoward experiences are enough to mar a whole trip; and when only one railroad falls down in only one place in such a movement, the whole industry from coast to coast usually gets the blame. Most people when they ride trains in interline movement have little idea what railroad they are on.

"Hot" cars are frequently comfortable enough when in motion but, when stopped in stations or yards for long periods, they can become unbearable. During such stops, the boys in "hot" cars could have been taken off the trains, perhaps for short walks. Instead, in some cases, they were simply left in the cars to roast. When in motion, the trains moved fast, but they spent long hours in stations and yards. This jack-rabbit, hurry-up-and-wait kind of operation can be very annoying. If it was unavoidable, its effect could have been largely offset by providing off-train diversion.

Each train was assigned a passenger department escort. These escorts were actually tour conductors, though not all railroads looked upon them as such. Some of these escorts did commendable work. On the trains with the more resourceful escorts, there did not appear to be many scouts who were not happy with their trip.

Easily the most popular railroad with the scouts was one which turned a disadvantage into an advantage. Compelled by a shortage of dining cars to seek other means for providing some meals, this road really discovered some—one of them was giving the boys breakfast at a nearby ranch. Side trips which were organized informally on the spot when time was available turned out to be just what the boys liked.

Railroads are judged by their customers not just from their performance in safety or operating efficiency, but from the overall convenience of their service. There's little use in doing half a job superbly and leaving the rest to chance.



WESTBOUND FREIGHT passing home signal at a passing siding controlled from . . .

. . . THIS CONTROL MACHINE in the dispatcher's office at Marysville, Kan.

C.T.C. Saves Minute Per Mile

. . . ON 217 MILES OF SINGLE TRACK

Change from automatic block to train operation by signals expedites trains on important cut-off route handling up to 30 trains daily westbound

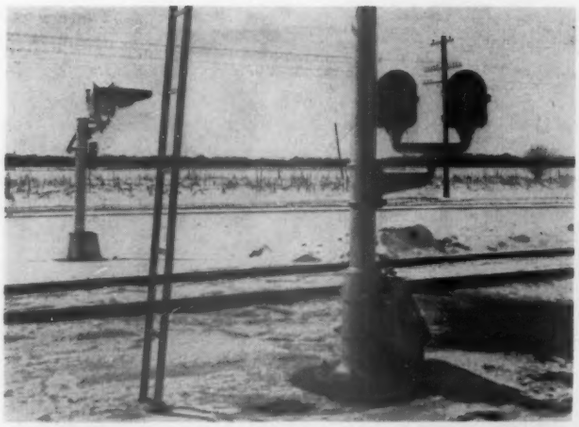
A time saving of one minute per mile for through freight trains has been accomplished by the installation of centralized traffic control on 217 miles of single track on the Union Pacific between Menoken, Kan., (Topeka) and Gibbon, Neb. This territory was formerly equipped with automatic signaling, the siding switches being hand-throw, and train movements were authorized by timetable and train orders. Now the siding switches are operated by power machines, and these machines, with signals for authorizing train movements, are included in the C.T.C. system, which is controlled by the dispatcher.

The principal main route of the UP runs from Omaha, west through Grand Island, Gibbon, and Cheyenne to Ogden, Utah, on routes through to the Pacific Coast. A second main route of the UP runs from Kansas City, west through Topeka, to Denver, from which city a line extends north 106 miles to Cheyenne to connect with the main east and west route. For through freight traffic between Kansas City and the Pacific Coast, the route via Denver includes too many grades. Therefore, many years ago a cut-off was built from the Kansas City-Denver line, starting at Topeka (Menoken) and extending northwest 217 miles to connect with the Omaha-Cheyenne line at Gibbon.

For through freights, the route via this cut-off, Topeka-Gibbon-Cheyenne, is 123 miles shorter than via Denver, and, furthermore, the grades are much easier. Grades average 0.5 per cent or less most of the way, but there is a section averaging 1 per cent in the vicinity of Marysville-Hanover. From Marysville to Bremen, 9 miles, the grade for westward movements averages 1 per cent ascending; and for 6 miles, Bremen-Hanover, the grade is 0.8 per cent descending. Helpers are often used on this 15-mile section.

This cut-off is used almost exclusively by freight trains, there being only one local passenger each way daily. This train is a rail motor coach which runs between Grand Island and Topeka via Hastings. Also freight trains bound for Omaha and Council Bluffs which originate in Kansas City use that part of the cut-off between Menoken and Marysville. Much of the traffic consists of manifests carrying merchandise westbound, and West Coast merchandise and fruit as well as lumber eastbound.

During the period when traffic is lightest, 17 trains are westbound and 21 trains eastbound. During harvest time in Kansas and Nebraska considerable tonnages of agricultural products are moved, with 25-30 westbound trains a day from Marysville to Hastings, some of the loads being westbound to the West Coast and some diverted eastward to Omaha and UP connections eastward. From August to January, increased



A FEATURE of this project is the use of track motor car indicators. The one at the right indicates a clear track to mile post 70.3. Leave-siding dwarfs are on pedestals to keep them clear of drifting snow.

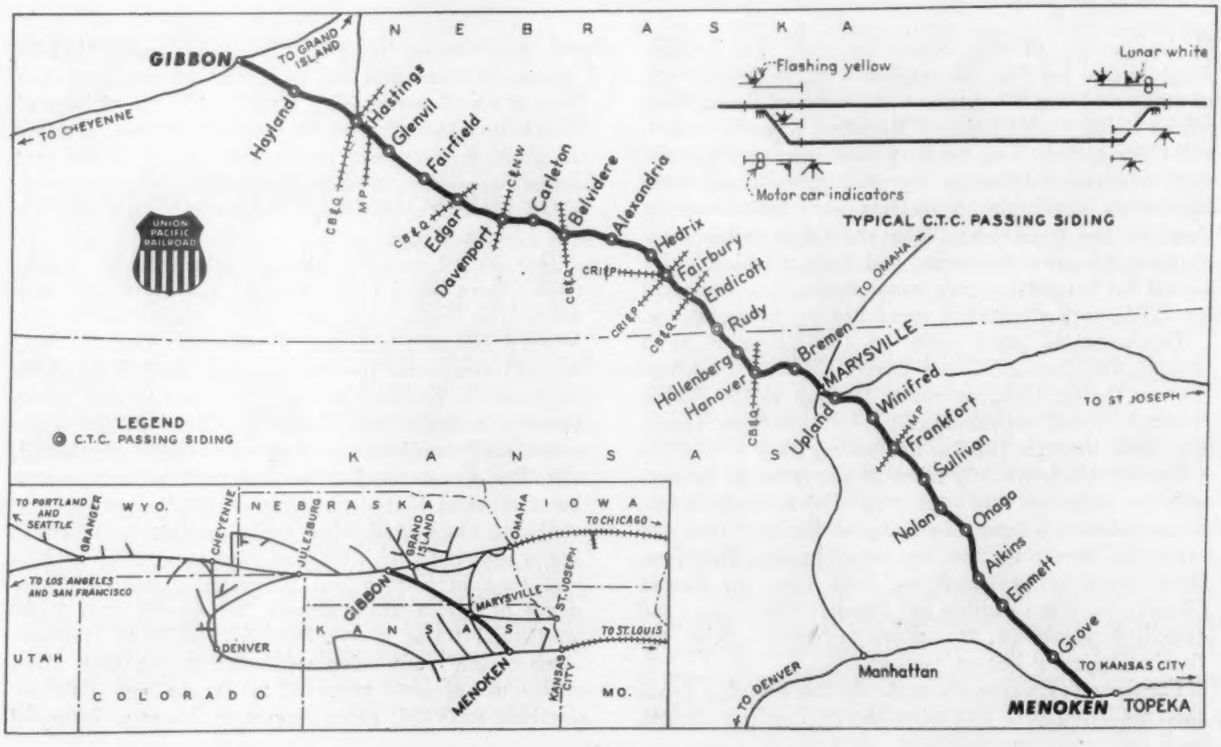
fruit loading results in a greater number of eastbound trains, sometimes running between 25 and 30 a day.

The 9000-class steam locomotives are used on this line. Trains average 4,000 tons eastbound and 2,500 tons westbound, although the tonnage ratings for particular districts will exceed these amounts. For example, the tonnage rating eastbound, Marysville-Topeka, is 4,800 tons; and westbound, Topeka-Marysville, is 4,500 tons. A 9,000-class locomotive will handle 3,200 tons on the grades between Marysville and Hanover without a helper. The ratings westbound, Hanover-Hastings, are 5,500 tons and eastbound 6,500 tons. Helper moves will average six a day on the Marysville-Hanover section, because one locomotive can handle greater tonnage west of Hanover. Maximum speed on the cut-off is 50 m.p.h. for freight and passenger trains on straight track, where not otherwise provided.

This territory previously had automatic block signals, installed in 1931. Under the new program of installing centralized traffic control, H-2 searchlight signals were used for the absolute signals at the ends of passing sidings, and for leave-siding dwarf signals. The intermediate signals are located in pairs (double signal locations). The station-entering signals at passing sidings are the two-unit type. When a train is to take siding, this signal displays red over lunar, which is the UP "Proceed at Restricted Speed" aspect. The signal in approach to this home signal will display yellow, and the second signal in approach will display a flashing yellow, known as "Advance Approach" aspect. No grade signals are used on this line. All signals are approach lighted.

All sidings were previously equipped with hand-throw switches, and varied in length from 80-car passing tracks to industrial sidings, and house tracks. One power switch was in service at the yard entrance at Menoken. With the installation of a traffic control system, all passing sidings were extended to hold 125 cars, and all other sidings on the main line of the cut-off were equipped with electric locks on the hand-throw switches.

Sidings at Lillis, Kan., and Delia were converted from passing tracks to storage tracks and equipped with electric locks. The passing track at Duluth was removed entirely. Passing tracks were shortened to storage tracks and electrically locked at Herkimer, Kan., Steele City, Neb., and Endicott. A new passing track was installed at Rudy, and No. 2 siding at Fairbury was removed entirely. Power switches are used on all passing sidings. Electric locks are on all main-line hand-throw switches except in the yards at Topeka, Fairbury, and Hastings where the speed is restricted to 20 m.p.h. The C.T.C.



control machine is in the dispatcher's office at Marysville, Kan.

The new C.T.C. has accomplished a saving of a minute a mile for freight trains on the cut-off. Such time savings have been particularly noticeable during periods of peak traffic in the fall. According to the chief train dispatcher at Marysville, at least one hour has been eliminated in train time from Marysville to Topeka. Helper movements to Hanover and return have been materially expedited. With traffic control, the dispatcher has been able to return helper locomotives from Hanover much sooner than he was able to do before. If traffic conditions permit, a helper can return almost immediately. Under train order and timetable operations, there often was not sufficient time between trains to allow a helper to return immediately after it had arrived at Hanover. The dispatcher now can use a power-operated passing track at Bremen into which he can divert helper engines when they are returning, so as to pass a train around them.

Because the sidings have been lengthened to 125 cars, the dispatcher is often able to make non-stop meets. Thus, tonnage trains are helped because they do not have to stop for a meet, and there is less chance for broken drawbars or knuckles. Also, savings in fuel and time are resulting from these non-stop meets. General overall efficiency of operation of the cut-off has been increased under centralized traffic control.

The project was planned and installed by railroad forces. The major items of signal equipment were furnished by the Union Switch & Signal Division of Westinghouse Air Brake Company.

Freight Rates: What Are They?

• Neat Patterns in Arithmetic, or
• Practical Prices?

"The purpose of rates is not the achievement of numerical symmetry but to induce the profitable movement of traffic"

By G. LLOYD WILSON*

Periodically in the history of freight rates, the rate structures and patterns are subjected to critical examination in the light of changed economic conditions. Such critical scrutiny is necessary and desirable from time to time, because rate structures tend to become rigid and unreal after a few years' use, during which time all that happens to them is minor changes, within conventional patterns. Attention is wisely diverted at such times from the aesthetic and mathematical attractiveness of the patterns of the rate scales and adjustments, and is concentrated, instead, on the more homely but also more vital question—do the freight rates price the transportation services to enable carriers to obtain the revenues they must have to operate their facilities with fair wages and at a fair profit; and do the rates move shippers' goods to markets under terms which permit equitable competition among producers?

The primary function of rates is to induce the movement of traffic under conditions which will redound to the benefit, alike, of suppliers and purchasers of transportation. The periodic realization of this fact directs critical attention to the rigidities in the freight rate structure—which have been built with meticulous care by rate and tariff experts and which are used by connoisseurs, many of whom find pleasure in the delicate patterns of symmetrical scales, and in the tracing of arbitraries and differentials. These periods of critical examination have occurred several times in recent memory—(1) following World War I and the economic adjustments necessitated by that conflict; (2) during the stunning depression of the early thirties; and (3) now, as never before, in the present period of adjustment following World War II and the havoc created by inflation.

Critical Attitude

Evidence of this critical attitude is found in a recent poll of carrier and industrial traffic officers in which 80 per cent of the railroad freight executives canvassed stated that the trend toward uniform class rates and cancellation of commodity rates was not the right trend to make railroads competitive with other forms of transportation; and was not in the best interests of the average shipper. Over 75 per cent of industrial traffic managers expressed the opinion that this trend was not going to achieve the goal of making railroads and other forms of transportation competitive; and over 71 per cent thought that recent trends in freight rates were not in the best interests of the

* *Dr. Wilson is chairman, Transportation & Public Utilities Department, University of Pennsylvania.*

average shipper.* It is significant that a higher percentage of railroad freight traffic executives than of industrial traffic managers, in the sample tested, were critical of present-day trends in freight rate structures.

How Rates Got Rigid

In the post-World War I period of readjustment in freight rates, major attention was directed to the remodeling of the territorial freight rate structures, which had grown up higgledy-piggledy without plan, and served merely to move traffic as it appeared. Other goals of the "revisionists" of the early twenties were the creation of equalization of railroad, water, and commercial competition; and the revamping of the freight rates developed in World War I, when competitive relationships naturally received less attention than the implementing of the war effort. The freight rate structures were combed out in the early twenties and Fourth Section violations were corrected. Walter C. Curlett, one of the able tariff publishing agents of this period, told me that, in the Eastern-Southern interterritorial railroad freight structure alone, over a million unknown Fourth Section violations were discovered in checking out the rates.

I.C.C. Investigations

The Interstate Commerce Commission—in its territorial and interterritorial railroad freight structure investigations—undertook to bring order out of freight rate chaos by prescribing master mileage or distance class-rate scales, and uniform percentage relationships among classes as maximum rates. These scales were designed for merchandise traffic and were intended to prevent unjust and unreasonable discrimination, preference and prejudice. Their purpose was to insure maximum rates on a uniform basis to all shippers, communities, and types of traffic. The freight rates between important commercial centers—and the commodity rates available for use by competitive industries and to competitive markets—were below these maximum scales, and were determined by industrial, commercial, and carrier competitive relationships.

The maximum rates have tended, however, for over a quarter-century, to become actual rates in many cases. Moreover, class rates have tended to become the controlling influence in the establishment of commodity rates—by the assignment of commodities to columns, or to percentages of the first class, and by the progressive cancellation of exceptions to the classification. Another influence working in the same direction has been the maximum class rate scales; and the class ratings and class rates in I.C.C. Dockets Nos. 28300 and 28310 have tended to become the controlling influences molding the level of commodity rates. The rigidity of this numerical rather than economic method of pricing has shattered important industrial and commercial competitive relationships and has handicapped railroad, motor, and water carriers in making commodity rates related to their own costs and to their comparative service advantages.

Carriers of different types have followed each other's rates rather than their own service and cost characteristics and advantages. In encouraging and enforcing this practice the regulatory commissions have prescribed rates for one type of carrier based upon the rates of carriers of another type and, through minimum or actual rate orders, have produced an artificial and inflexible rate structure. To what useful purpose?

No Dogmatic Remedy Suggested

It is easier to get people to agree that there are defects in the pricing of carriers' services in a time of economic change than it is to obtain agreement on remedies among carriers of the same or different types, or between carriers and shippers, or among shippers of different commodities in different parts of the country. The malady is apparent but a cure which will meet the varying tastes of the various classes of patients is a harder problem. It is not the purpose of this discussion to present new-minted panaceas, but, rather, to suggest procedures by which difficulties may be exposed and approaches made toward remedial improvements.

These suggestions are ventured with full appreciation that they are not easy to accomplish, and with the knowledge that the solution of one problem often creates others. It is not reasonable to expect that the solutions will be either permanent or complete—human beings and institutions being what they are. These realistic—and perhaps even cynical—considerations must not dissuade us from making the effort.

It is realistic to assume that the problems will not be solved by attempting to induce any group of carriers or shippers to make the noble sacrifice of submerging their self-interest for the good of others. Each carrier and shipper can be expected to assert and defend his reasonable self-interest and to expect others to do the same.

It is also realism to take the view that these problems will not and cannot be solved by cut-throat tactics in which not the fittest but the most ruthless survive. The public clearly wants competitive transportation services and charges, but is not conditioned to tolerate intercarrier rate wars or ruthless competitive practices.

"Task Forces" Recommended

The progress and cooperation among carriers, and between carriers and shippers, in the simplification and standardization of freight tariffs, encourage me to suggest that "task forces" of carriers and shippers be deputized to study the various suggestions for the improvement of freight rates and to make appropriate recommendations after comprehensive study of the economic and legal implications of what they recommend. In view of the complexity of the problems, it is suggested that separate committees or subcommittees give consideration to the different recommendations.

Finally, it is recommended that a comprehensive study be made of the methods of handling and pricing small-lot shipments and that, after study, action be taken. For twenty years, the so-called less-than-carload or small shipment problem has been discussed and debated. The Section of Transportation Service of the Federal Coordinator of Transportation in 1935 studied the problem and made recommendations—but the problem is still

*"Trend in Rates: Good or Bad?", *Railway Freight Traffic*, March 1953, p. 15.

HOW PRESENT INEPT RATES ARE FALLING DOWN AS PRACTICAL PRICES

1. Rates are related too rigidly to distance so that differences of a few miles in haul, insignificant in carriers' costs, cause rates from one point of production or to a market to be out-of-line with expenses incurred by competitive producers and induce producers to seek other markets or locations, and the markets to search for other sources of supply.

2. The basing of rates of one carrier upon the rates of carriers of another type violates the sound economic and legal principle of permitting carriers to enjoy their inherent economic advantages in service and cost; and deprives patrons of services and charges based upon the costs of the more efficient carriers. Differences in distance are of greater significance in the costs of carriers of some types than of others.

3. The excessive costs of performing certain unprofitable services are shifted from these services and those who use them to other shippers and other traffic which must pay more than their share of the burden, which is neither economically sound nor equitable. The recent decision of the Supreme Court of the United States in the Texas Citrus Shippers *(Baltimore & Ohio Railroad Company et al. v. U.S., I.C.C., and Texas Citrus and Vegetable Growers and Shippers,* No. 258, October Term 1952, March 16, 1953)**— in which the court upheld an order of the Interstate Commerce Commission establishing freight rates below a compensatory level on this particular traffic in order to relate the rates from Texas to those from Arizona, New Mexico, and California shipping points—has the effect of shifting the burden of producing revenues which, as a whole, will be compensatory to the carriers. It is an example of the practice of piling more of the burden of revenue production upon "captive traffic."**

4. The making of commodity rates upon percentages of first class rates and the wholesale elimination of exceptions to the classification make for simplicity and numerical order in freight rate structure, it is true, but produce rates which tend to price the carriers out of natural markets and cause shippers to seek other forms of transportation. Such rates promote establishment of plants at new locations nearer sources of supply or closer to markets, or promote the development of private transportation services. Any of these alternatives deprive for hire carriers of traffic and revenues, and confer no benefits on producers or receivers.

5. The continuance of the wartime transportation tax of 3 per cent of the charges of for-hire carriers tends also to accelerate the trend to private transportation services—to a degree beyond any "inherent advantages" of such services.

6. The steady upward trend of freight rates since 1939—which cumulatively has increased freight charges by 78.9 per cent over the levels of railroad freight rates prevailing in 1939—has caused industries to relocate plants so as to shorten freight hauls and to find cheaper forms of transportation services, either by using other types of carrier services or developing private transportation, or both—the same results as are produced by relating commodity rates to class rates.

7. The increasing complexity of freight tariffs due to general increases in rates and charges without the republication of the tariffs, and the increasing number of effective supplements of tariffs, have driven upward the cost of rate department work for carriers and their patrons. A recent canvass of opinion of a number of carrier and industrial freight traffic rate executives developed the information that the average competent rate clerk can do less than half the volume of work that a rate clerk of the same degree of competence could do fifteen years ago. The constructive and effective work now being done by the Tariff Research Group of the A.A.R. and other groups of carriers, with the cooperation of shippers throughout the country, is accomplishing a significant improvement.

8. The fixing of volume or quantity rates upon carload or other minimum weights unrelated to the carrying capacity of the vehicles used—railroad freight cars (or trains), motor vehicles, barges or vessels—ignores the obvious economics of the operation of carriers of these different types. If a railroad freight car weighing 50,000 lb. is used to transport 40,000 lb. or less pay-load, the pay-load is only 44 per cent of the gross weight. If the same car is used to transport 80,000 lb. or 100,000 lb., then the ratio rises to 62 or 67 per cent. Since operating costs increase in terms of gross weight rather than in the weight of pay-load, corresponding decreases, advantageous to carrier and patron alike, can be made in freight rates as the ratio of pay-load rises.

9. The time lag between the dates of increases in the railroad costs and the dates on which increases in rates are permitted is a deplorable and frustrating hardship upon carriers which gives no long-term advantage to their patrons. Improved ex parte procedure must be found which will expedite the decisions of the Interstate Commerce Commission and of state regulatory commissions, without denying the rights of shippers to protest rates which inequitably disrupt competitive rate relationships among areas of production and markets.

with us. A half-dozen transportation agencies—railways' l.c.l. service, the Railway Express Agency, motor carriers' l.t.l. service, the parcel post, and the services of the freight forwarders—compete for the small shipments of merchandise traffic. This represents a small percentage of the total traffic of the country, whether measured either in tonnage or in ton-mileage. It represents a higher percentage of total freight revenues. Despite high charges the agencies of transportation among which this traffic is fragmented are usually unable to obtain from it compensatory revenues.

Consideration should be given to the establishment

SUGGESTED APPROACHES TO REALISTIC RATE-MAKING

1. The use of class rates for merchandise traffic and the separation of the commodity rates from relationship to class rates.

2. The establishment of commodity rates upon interrelated groups, based upon consideration of carriers' costs, volume of movement, carrier and commercial competition, and other realistic pricing factors. Competitive producing points, manufacturing centers, and markets should be grouped in small rate groups for short or middle-distance traffic and into large groups for long-haul traffic, so as to preserve and reestablish competitive rate relationships similar in principle to the highly realistic and effective MacGraham Formula, adapted to present-day industrial and market relationships.

3. The establishment of freight rates designed according to the types of vehicles used—railroad cars, trucks, barges or vessels—with minimum weights consistent with the type of transportation vehicle used.

4. The making of freight rates on bases designed to encourage the full utilization of the vehicles by lower rates upon quantities of freight which utilize the carrying capacity of the vehicles.

5. The use of "train-load" or "multiple-carload" or other large lot movements consistent with savings in operating expenses derived from such movements and with the protection of the right of shippers of smaller lots to pool their shipments so as to obtain similar large-unit rates.

6. The making of freight rates based upon the inherent service and cost advantages of each particular type of carrier, without relating these rates to the rates of carriers of other types, whether such rates are made by action of the carriers in defiance of sound cost principles or prescribed by regulatory commissions as a result of minimum rate orders or in the protection of the high-cost carrier against the competition of the more efficient type of carrier.

7. The placing of the burden of earning a fair share of revenue upon all types of traffic so as to prevent the shifting of the deficits produced by unprofitable traffic upon other traffic, particularly upon "captive" traffic or shippers dependent upon one form of transportation. Each type of traffic should stand upon its own feet.

8. The carriers should be allowed to exercise managerial discretion and to assume managerial responsibility in fixing rates and charges for their respective services within the "zone of rate reasonableness" between out-of-pocket costs as minimum and the value of the service or all that the traffic will bear, as maximum. Rates above maximum reasonable rates should be prohibited for the protection of the users of the services, and rates below out-of-pocket costs should be forbidden to protect carriers against their own folly or from ruinous and confiscatory rates imposed by government regulatory action.

9. Carriers and shippers should be permitted to negotiate and establish just and reasonable rates on particular movements of traffic, or for the movement of all or certain designated portions of the shipper's traffic, at contract rates or "agreed charges." These rates should be available to all who can use them upon equitable terms without unjust discrimination, preference or prejudice. Such arrangements would assure to the carriers making them—whether railroads, motor carriers, water carriers, air lines or freight-forwarders—determinable volumes of traffic and would enable shippers to forecast accurately their transportation costs.

Rates of this type, similar to the agreed charges of the British or Canadian railways and to the contract rates of water or moter carriers, can be made under the Interstate Commerce Act. ("Average" freight rates were made by the Western railroads during World War II on shipments transported by the United States Army Consolidating Station at Chicago to Pacific destinations in order to save the manual labor and the clerical expense of segregating the loading of the shipments according to the numerous rate brackets in effect on transcontinental traffic. The rate was based upon the average of the rates actually paid at the "bracket rates" upon which the shipments moved during a test period of three months. The rate so fixed was subject to reconsideration at intervals and subject to revision if in the test period used to determine the rate for the future a change in the nature of the traffic or destinations was indicated.)

of a consolidated merchandise service or services which will improve the load factor in this form of transportation, and to the establishment of rates constructed on a realistic pattern to follow more closely the cost pattern of this kind of transportation. As a basis for further study, it is suggested that such rates be made in three parts:

(1) A constant cost factor for billing and rating, costs which do not vary either with weight or with distance; (2) a factor for terminal handling, including pick-up and delivery where costs vary with the size of shipments, but not in direct proportion to weight in 100-lb. units, and which does not vary with line-haul distance; and (3) a factor for line-haul interterminal movement where costs do vary more in proportion to weight and distance.

Some will object to the changes in rate-making procedures and practices here proposed for consideration because they differ substantially from conventional rate-making formulae. The present condition of carrier costs and the profitless prosperity of many carriers, despite large volumes of freight traffic and high rates, suggest that present pricing practices for transportation services are inadequate and inept to cope with present conditions of carrier, industrial and commercial competition.

Serious maladies suggest the need for drastic remedies, applied without delay.

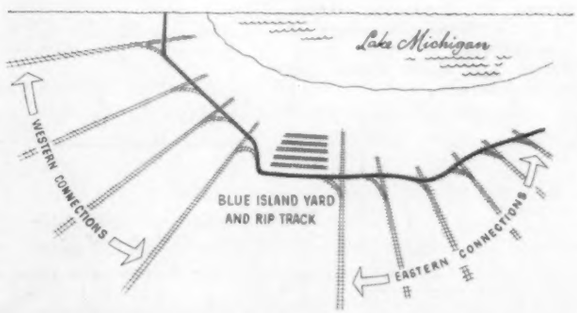
ON THE IHB AT BLUE ISLAND . . .

This Rip Track Cuts Delays

Five tracks in new location add 25 per cent to capacity—Through movement in each direction facilitates dispatch of repaired cars

Early this year the Indiana Harbor Belt completed a new rip track at Blue Island, Ill., the light repair area of which comprises five tracks spaced on 25-ft. centers. These are bordered on each side by concrete runways 1,100 ft. long and illuminated by 57 light poles fitted with 300-watt bulbs in boulevard-type fixtures which provide light intensity approaching daylight at all times. The repair tracks are open at both ends to expedite movement of bad-order cars. Cars enter the repair area on one lead track, get repaired, and leave on the lead track on the opposite end for through movement.

Three major benefits have accrued from the new rip track: (1) capacity has been increased about 25 per cent; (2) delay time for repairing bad-order cars has been cut



THE BLUE ISLAND YARD is strategically located between the area where western connections cross the IHB and where eastern connections cross.

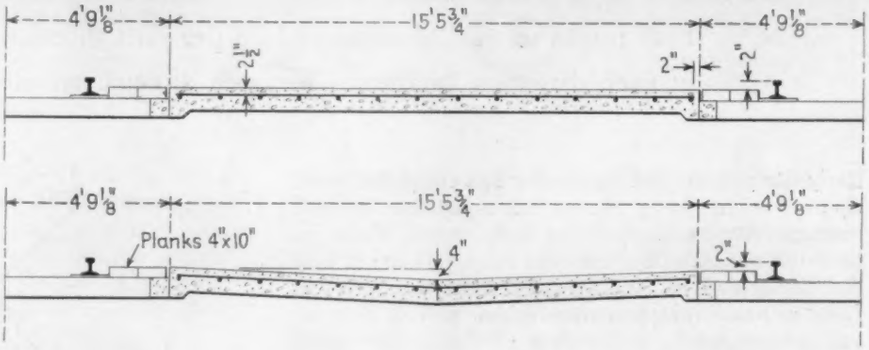
WHEN THE EXISTING rip track at Blue Island had to be moved to make room for seven new classification tracks, ample space was available at the south edge of the yard . . .

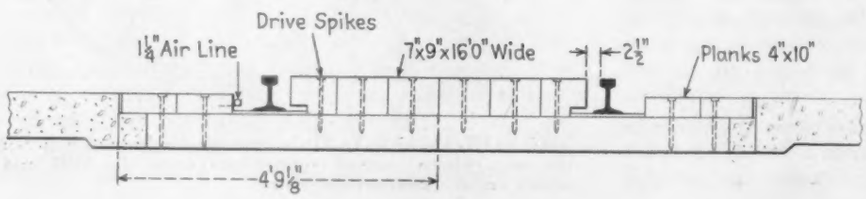
. . . TO BUILD a spacious and well equipped light repair area with five tracks along with the necessary approaches to expedite the handling of bad order cars.

THE AREAS on each side of all the tracks are concreted for a length of 1,100 ft. and light poles placed off center for large vehicles to pass between the pole and the car.

NEW WHEELS are stored in the area in the foreground, scrap wheels in the background. Loading and unloading from the wheel car is performed by rubber-tired crane.

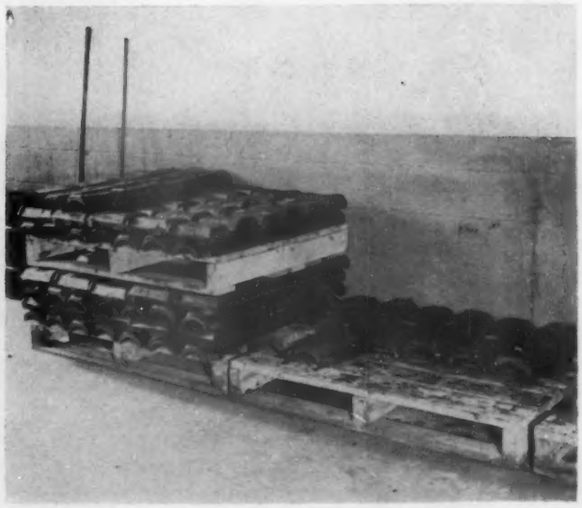
HOW THE YARD is drained. From the summit (upper drawing) each driveway slopes to maximum depth of 4 in. (lower drawing) at the center to the drain. There are eight drains on each driveway.



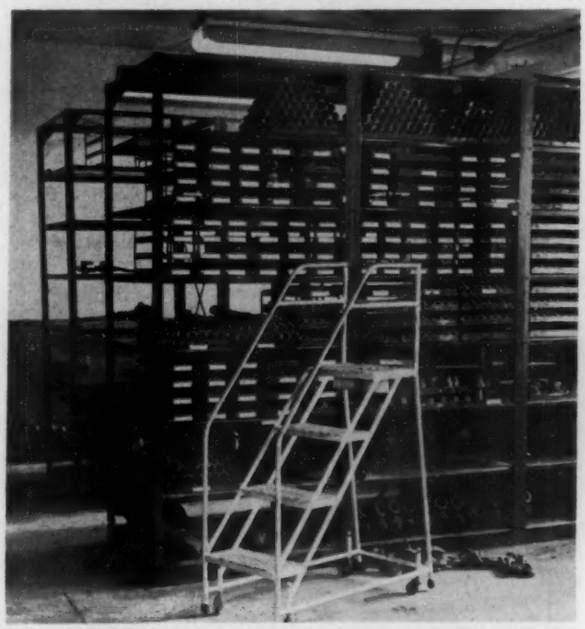


SECTION through a cross road. Three cross roads connect the areas between and outside of the tracks.

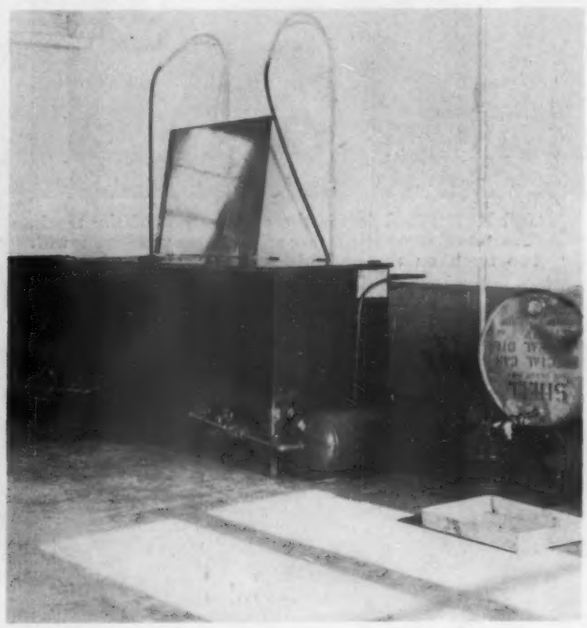
A BUILDING was constructed on the north edge for the office, stores and miscellaneous repairs. Heavy planks border the tracks to support jacks.



JOURNAL-BOX brasses are palletized to permit delivery to the storage area by lift truck, and are stored on pallets until ready for use to conserve space and reduce damage.



THE LADDER used in the storeroom is supported from the wheel frame by springs. When stepped on, the springs are compressed and the ladder rests on the four legs.



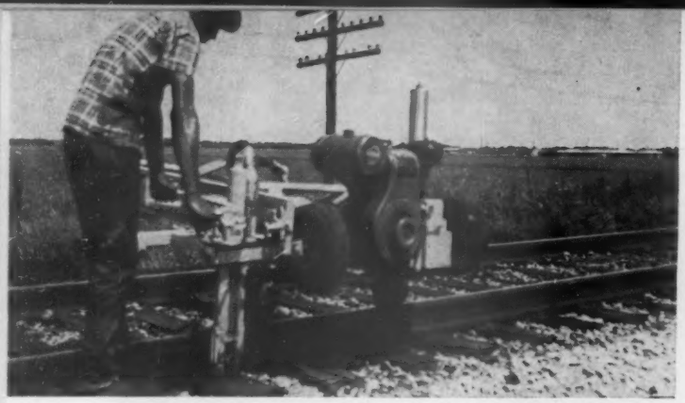
OIL DRAINS from waste stored in the big tank into drums mounted on the floor. Air pressure on the drums delivers the oil through the upper piping to resaturate the waste.

to a minimum, and (3) work that formerly had to be sent to other points can now be handled at Blue Island, saving car-miles and hours.

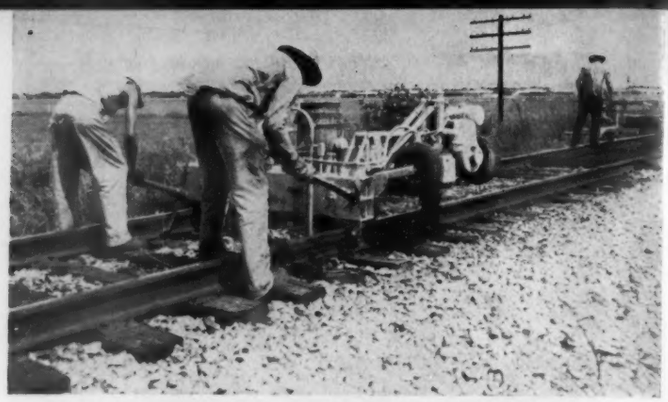
The decision to build the new rip track had its origin in the need for seven new classification tracks in the Blue Island Yard. The former rip track was situated where it would be the most convenient to lay the new classification tracks, so the rip track was moved to the south edge of the yard where space was available to do a real job on the layout.

Full advantage was taken of the adequacy of space to build the type of rip track where bad order cars could be repaired with maximum speed, as Blue Island is the key to the fast yard handling that is essential for belt lines like the IHB. It lies between the area where western connections cross the IHB and where the eastern lines cross. This yard is therefore the classification point for all perishable loads going east. Some other freight going east is also classified here, as are some westbound empty reefers.

One of the outstanding features of this rip track from the workers' standpoint is the excellent drainage. This is attained with the rails, the jacking boards and the runway edge next to the rails remaining absolutely level. It is done by varying the dip in the center of each runway from zero at each of the seven summits to a maximum of four inches at the valley. Fifty-five drainage openings carry the water away.



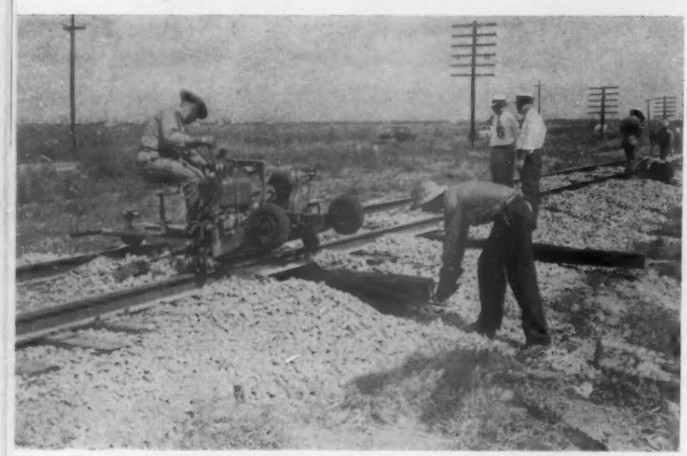
1 SPIKE PULLER pulling spikes from the ties which are to be renewed. The one machine pulls the spikes for both rails.



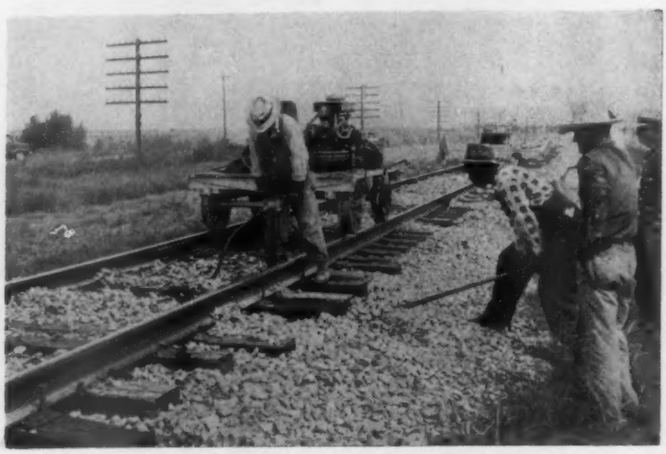
2 RAIL LIFTER raises the rails slightly for removal of the tie plates. The same tie plates were later replaced on the new ties.

3 TIE REMOVER forces the old ties out of the track. The force is applied through a hydraulic ram with two teeth on the end which bite into the tie.

4 TIE-BED SCARIFIER uses transverse rotating toothed shafts to clean out and lower old tie beds to facilitate insertion of new ties.



5 TIE INSERTER pulls the new ties into the track after they have been placed into position by two men. This machine is self-propelled.



6 PNEUMATIC HAMMERS, powered by compressor carried on push car, drive spikes in new ties. Normally two hammers are used.

Mechanized Tie-Renewal Gang

. . . CUTS INSERTION COST $1 PER TIE

New organization developed by the Santa Fe, utilizing five relatively new types of machines, is effecting substantial economies

A highly mechanized tie-renewal gang of 40 men, which is replacing ties at the average rate of 384 per day, is now employed on the Atchison, Topeka & Santa Fe. A product of three years of development work, the new organization is putting in ties at an average total cost of $1.40 per tie, which represents a saving of $1 as compared with the cost of doing the work with section gangs. On a recent day when the gang was inspected 410 ties were inserted and tamped in slightly less than five hours of on-track time.

At that time the organization was working a short distance west of Houston, Tex., on the Santa Fe's single-track line between Houston and Galveston. The gang was engaged in a regular tie-renewal operation involving about 19½ miles of line. The tie renewals were averaging 400 to 450 per mile. The new ties to be inserted had been unloaded in advance directly where needed from either a work train or a local freight.

When the railroad started to develop the new organization three years ago, the intention was that it would be used only in connection with maintenance tie renewals. However, for a period of about 1½ years excellent use was made of the gang in making heavy tie renewals in connection with out-of-face surfacing work. The gang was then returned to maintenance tie renewals and has been engaged in that work ever since. What this means is that the ties are "dug in," no raise being made, and that only the new ties are tamped. The gang was performing this kind of operation when inspected near Houston.

When the gang was being developed various units of equipment and types of organization were tried out. At one time the gang was operating with as few as 20 men, while at another time it consisted of 55 men. During the development period the design of all the machines used was changed many times in an effort to develop a more efficient and economical operation, through speeding up the work or reducing the number of men required. Efforts to improve the gang are continuing and both the railroad and the cooperating manufacturers are endeavoring to devise better and faster methods and machines.

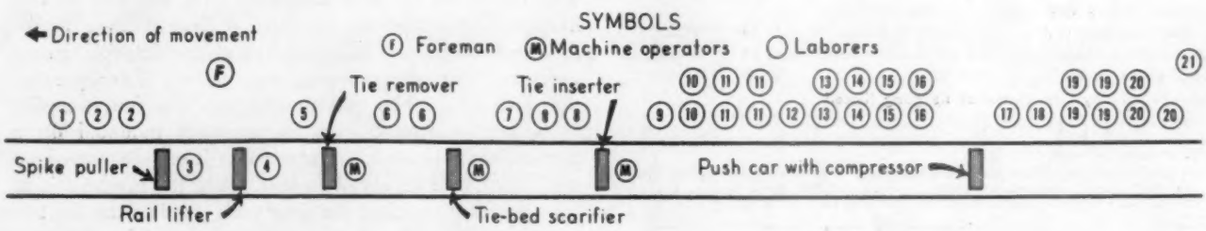
The accompanying chart shows the organization of the gang as presently constituted. It will be noted that the principal units of equipment, given in the order in which they appear in the gang, beginning at the forward end, consist of

- A spike puller (Fairmont Model W84-A)
- A rail lifter (Fairmont Model W86-A)
- A tie remover (Fairmont Model W68-A)
- A tie-bed scarifier (Fairmont Model W87-A) and
- A tie inserter (Fairmont Model W69-A).

In addition there are two pneumatic spike hammers driven by an Ingersoll-Rand Model 3R36 compressor carried on a push car.

All of the on-track units except the tie-bed scarifier are each fitted with a pair of transverse pneumatic-tired wheels to facilitate removal from the track. To clear the track for a train the scarifier is moved to the nearest crossing or motor-car setoff. Transverse rails for use in removing this unit from the track are carried on a push car behind it.

The functions of all of the machines are self-explanatory, with the possible exception of the rail lifter and the tie-bed scarifier. The purpose of the rail lifter is to raise the rail slightly at each tie to be removed to facilitate removal of the tie plates. Soon after the development of the gang was started, it became evident that some



DUTIES OF LABORERS

	Number		Number
① Removing anchors ○	1	⑫ Throwing in tie plates and spikes	1
② Peeling tops of ties ○	2	⑬ Placing plates on ties	2
③ Operating spike puller	1	⑭ Spike setters	2
④ Operating rail lifter	1	⑮ Nipping for spike hammers	2
⑤ Remove tie plates, throw out spikes	1	⑯ Operating spike hammers	2
⑥ Tie-remover helpers	2	⑰ Handling push car with compressor ☆	1
⑦ Cleaning tie beds (under rails and extreme shoulder)	1	⑱ Re-apply anchors	1
⑧ Placing ties for inserter	2	⑲ Dressing	4
⑨ Tie-inserter helper	1	⑳ Lining	3
⑩ Nipping for tampers	2	㉑ Campman	1
⑪ Tamping with forks	4	Total laborers	37

○ Also help to dig eyes under rail for tie-remover hooks

☆ Also acts as relief man on spike hammers and for machine operators.

SUMMARY

1 Foreman
37 Laborers
3 Machine operators

NOTES

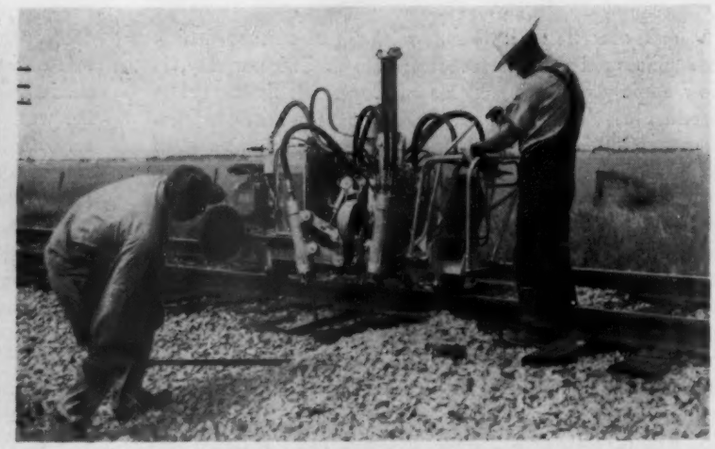
Laborers performing operations ⑪, ⑲ and ⑳ are not particularly fixed insofar as number of men are concerned. These men may be used for other duties as necessary.

Operations performed by laborers ① to ⑤, inclusive, can usually be completed early enough in the day to allow these men to be used on cleanup or other work that has fallen behind.

Number of laborers performing operations ⑭ and ⑮ will vary depending on whether the gang is working on track which is anchor spiked, making it necessary to redrive 8 spikes per tie, or on track where it is necessary that only 4 spikes be driven per tie.

ORGANIZATION CHART for the new tie-renewal gang, consisting of 40 men not including the foreman.

FORWARD UNIT of the gang consists of three men who remove rail anchors from ties to be renewed, "peel" tops of these ties where necessary to facilitate their removal, and dig "eyes" underneath the rail for tie-remover hooks.



NEW FOUR-UNIT TAMPER, hydraulically operated, being demonstrated. This unit has pneumatic tires to permit it to be removed from the track. Tamping is now done by hand but mechanization experiments like this are under way. The machine, operated by one man, can be pushed short distances, or towed by motor car.

COMPARATIVE COSTS

ORGANIZED TIE GANG VERSUS SECTION-FORCE RENEWALS

	Tie Gang*	Section Gangs†
Average number laborers per day	36.1	6.0
Average man-hours per day (laborers)	285	48
Average cost per day—laborers, machine operators, timekeeper, foreman	$495.62	$80.11
Average number ties per day	384	37.3
Average miles per day	0.62	0.05
Average cost per tie (personnel only)	$1.29	$2.15
Average number man-hours per tie inserted	0.742	1.211
Average on-track time for machines, hours	6	....
Average hourly rate (based on laborers' hours only and total cost)	$1.74	$1.78
Depreciation, repairs, fuel and oil costs per day	$42.66	$9.08
Total average cost per tie	$1.40	$2.40
Savings per day through use of tie gang (based on ties inserted by tie gang)	$384.00	

*50 consecutive work days

†64 gang-days. Six different sections were used over a six-week period for this test. During test, each section inserted ties for three weeks. Every attempt was made to minimize competitive efforts.

means must be devised to lower the old tie bed to facilitate insertion of the new ties which are generally thicker than the old ones. The tie-bed scarifier was developed to serve this need. Its purpose is accomplished by transverse rotating shafts fitted with a series of steel teeth. As the shafts are lowered into the tie bed the teeth dig out the ballast and throw it forward. Ballast remaining under the rails and on the extreme shoulder from where the tie is inserted is removed by hand.

To determine the extent of the savings being realized with the new organization the railroad recently made a study of the performance of this gang in comparison with the cost of renewing ties with section forces. The results of the test are shown in the accompanying tabulation.

Although the new tie gang is considered an economic success in its present state of development, it is considered still to have some inadequacies which are now in the process of being corrected. For instance, it is felt that there is much room for improvement in the tamping effort. At present this work is done by hand labor using ballast forks. As a solution to the problem of performing this operation more economically, Racine Hydraulics & Machinery, Inc., collaborating with the railroad, has developed a hydraulic, 4-tool tamper, the "Hydra-Quad," which is operated by one man. The most recent model of this machine became available only recently and was being demonstrated on the day the gang was inspected. It was pointed out that two such machines could perform the tamping work for the gang at a considerable saving and that the quality of the work would be better than that obtained with present practices.

In the "Hydra-Quad" the tamping assembly, together with the power plant, is supported over one rail on two flanged rollers, with an insulated outrigger extending to the opposite rail. The power plant consists of a low-pressure hydraulic pumping unit driven directly from the shaft of a 10-hp. gasoline engine. The four tamping tools are incorporated in an assembly mounted on a vertical shaft in such a manner that it can be moved up and down, and arranged so that, when the machine is in the operating position, the four tools straddle the tie, two outside and two inside the rail. The design is such that, as the tamping proceeds, the tools are tilted to force ballast under the ties at the proper depth.

Power is imparted to the tamping tools by means of a newly developed hydraulic accumulator and a specially designed valve which regulates the frequency of the tamping blows (1,400 blows per minute are said to suffice in average tamping). The design is said to incorporate a vibratory action that feeds the ballast to the faces of the tamping bars. All motions of the tampers are controlled by two levers conveniently placed for the operator. The machine is pushed from tie to tie by the operator, and may be towed by a motor car when being moved from one location to another. By means of lifting handles and two outboard rubber-tired wheels, it is said that three men can move the machine to and from the track.

The new tie-renewal organization has been developed under the general supervision of T. A. Blair, chief engineer system of the Santa Fe, and R. H. Beeder, assistant chief engineer.

THE TWO NEWEST BOATS—"S.S. Spartan" and "S.S. Badger" during trial runs last spring on Lake Michigan.

A $15-MILLION DEVELOPMENT PROGRAM NEARS COMPLETION . . .

C&O Cross-Lake Ferry Service

How new and rebuilt boats, plus improved port facilities, increase capacity and speed service on east-west rail-water line

The Chesapeake & Ohio is investing over $15 million in its cross-Lake Michigan ferry service for the direct purpose of expanding its through rail service via these routes.

When the program is completed—probably late this year—the C&O will have increased its capacity over this route by over 40 per cent, and will have made its service faster and more attractive to shippers.

Operate on Three Routes

The three cross-lake ferry services operated by the C&O (shown on the accompanying map) are a part of its short-mileage trunk line linking the important eastern gateways of Buffalo and Detroit with Wisconsin, Minnesota and the rapidly expanding areas beyond, including the Pacific Northwest.

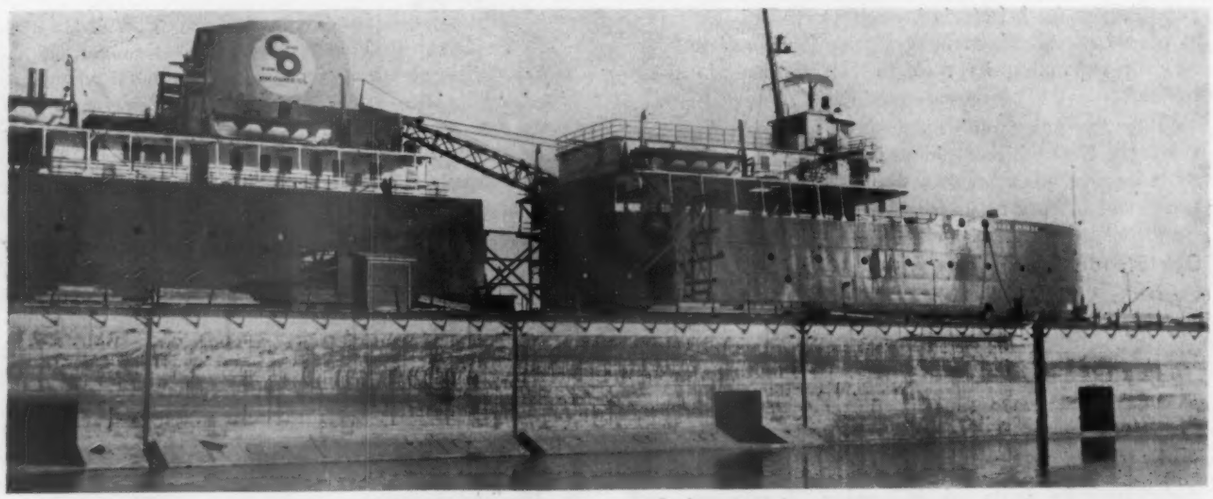
The car ferries operate between Ludington, Mich., and the Wisconsin ports of Milwaukee, Manitowoc and Kewaunee—a large-scale marine operation. In effect they provide an extension of C&O rails over water. Rates generally being constructed on the basis of short-line distances, this operation offers an advantage to shippers rate-wise, to the extent that mileages constructed via across-lake routes are lower than those constructed via Chicago.

The cross-lake ferry service presently operated by the C&O had its inception in 1896 when the Pere Marquette (predecessor to the C&O) built what was said to be the first all-steel car ferry to operate on the Great Lakes. The service gradually grew until last year the C&O was operating six boats (including the modern streamline "City of Midland" built in 1941) in this service, having a total capacity for moving an average of 456 freight cars across Lake Michigan in a day.

In 1952 two new $5-million ferries were launched: the "S.S. Spartan" and the "S.S. Badger." The "S.S. Spartan" went into service last November, and the "S.S. Badger" began regular service April 1. These two new ferries are 410 ft. long, have a top speed of 20 m.p.h.,

THE C&O's CROSS-LAKE car ferry fleet moves traffic quickly and on schedule.

THE TERRITORY serviced by the cross-lake car ferry service. Traffic originated on the C&O's Chesapeake district is generally routed through Chicago.



LAST STEP in the improvement program is lengthening two of the older boats. The "Pere Marquette 22" in the ship yard with its hull split prior to increasing its length.

and can handle an average of 32 freight cars on the ferry deck, plus 12 to 14 automobiles.

Coal-fired boilers and 8,000-hp. Skinner "Uniflow" engines provide ample power to maintain schedules even under adverse weather conditions. The upper decks—or cabin and boat decks, as they are called—contain 60 staterooms, a dining room and a lounge, all air-conditioned, with accommodations for a total of 537 passengers.

Older Boats Modernized

With the two new boats in service, work is now progressing on plans for enlarging and repowering two of the older boats. The "S.S. Pere Marquette 21" and the "S.S. Pere Marquette 22" (now at the shipyard) will have 40 ft. added to their length, materially boosting their freight-car carrying capacity. New boiler and propulsion units will increase their top speed from 14 to 18 m.p.h. in addition to greatly improving their overall performance. When these boats are returned to service, the oldest boat in the fleet ("Pere Marquette 18") will be permanently retired.

The new seven-boat fleet will be able to move an average of 636 freight cars a day across the lake—or 40 per cent more than could be handled with last-year's six-boat fleet. In addition, most schedules will be considerably faster.

Port Facilities

The car ferry fleet is based at Ludington, Mich., where connections are made with the C&O's through freight trains to and from eastern Michigan, Toledo, Ohio, and Buffalo, N.Y. The three ferry slips are very close to the arrival and departure train yards, so that cars can be moved on and off the boats and into and out of trains with a minimum of wasted time and motion. In addition, the marine department maintains extensive machine and carpentry shops here for the maintenance of the ferries. This marine maintenance plant is said to be one of the best equipped on the Great Lakes.

In Milwaukee, the ferries connect with the Chicago, Milwaukee, St. Paul & Pacific via the Maple Street dock, and with the Chicago & North Western via the municipally owned Jones' Island dock.

The Maple Street dock and facilities in Milwaukee are owned and maintained by the C&O. Last year—in anticipation of the increased freight car traffic which could be handled by the new ferry fleet—this entire facility was enlarged and rebuilt. A new station and general office building was erected, along with new covered passageways and stairs to the passenger decks. The freight yard was rearranged and expanded by the addition of seven new tracks and by lengthening most of the others. This had the effect of speeding the movement of freight cars on and off the ferries, as well as increasing the capacity of the yard from 85 cars to 205. At Maple Street, direct connections are made with the Milwaukee through its 14th Street yard.

At Manitowoc, Wis., the ferries use the Soo Line dock—immediately adjacent to that road's large Manitowoc yard—and the Chicago & North Western dock at the end of the C&NW's lake front yard.

The Green Bay & Western maintains a large two-slip ferry station and yard at Kewaunee, which is used by the C&O.

AUTOMOBILES and passengers produce over $1 million, an important bit of "extra" revenue.

At all ports, the C&O has made a point of arranging facilities to keep traffic moving. Boat time is expensive (currently about $500 an hour). Hence, every hour a boat is tied up waiting for a switcher to shuffle cars costs dearly.

Boat schedules are carefully integrated with C&NW, CMStP&P, GB&W, and Soo Line freight trains into and out of the "west bank ports." These, in turn, are met at Ludington by fast trains to Detroit and Buffalo which are timed to make all important connections.

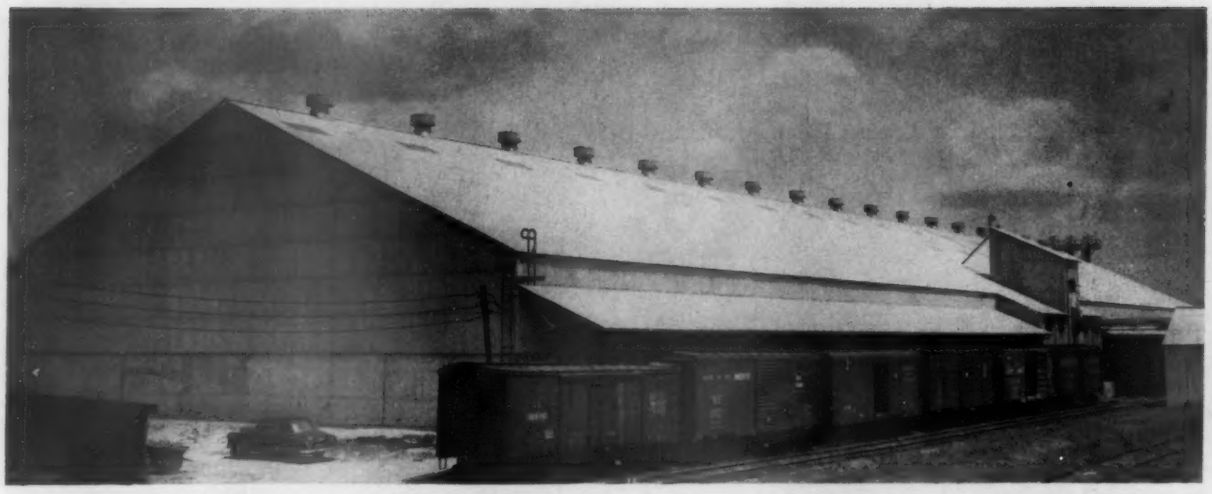
The C&O claims that it can move freight on its cross-lake route 24 hours faster than it can be moved around the lake.

Passenger and Auto Traffic

The C&O describes the transportation of automobiles and passengers on boats operated primarily for freight service as "one of the most profitable forms of railroad transportation in the country." Hence, it is being promoted in a big way. This traffic currently grosses over $1 million a year in revenues. However, approximately 75 per cent of that is earned in the 14 weeks of the summer vacation and fall hunting seasons.

With the attractive passenger accommodations available on the two new boats and on the "City of Midland" (plus the improved accommodations which will be provided on the rebuilt boats) the C&O sees an opportunity to expand its revenues from this source—at a relatively small out-of-pocket expense. Particular attention is being paid to building up the "off season" passenger and automobile traffic.

A ferry fully loaded with freight cars still has room for between 12 and 18 automobiles, so they can be accommodated without the necessity for leaving freight behind. When freight traffic is running light, more autos can be handled.



FIRE-RESISTANT AND EFFICIENT . . .

New C of Ga Nitrate Warehouse

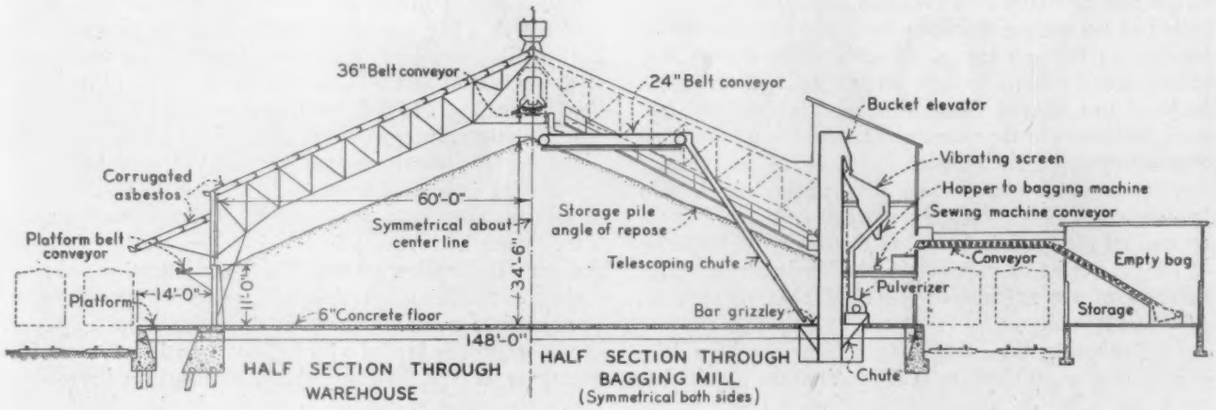
New dockside facility, costing more than $600,000, is major rail distributing point for expanding fertilizer business

For many years the Central of Georgia has maintained a dockside warehouse at Savannah, Ga., for the bulk storage of Chilean nitrate of soda.

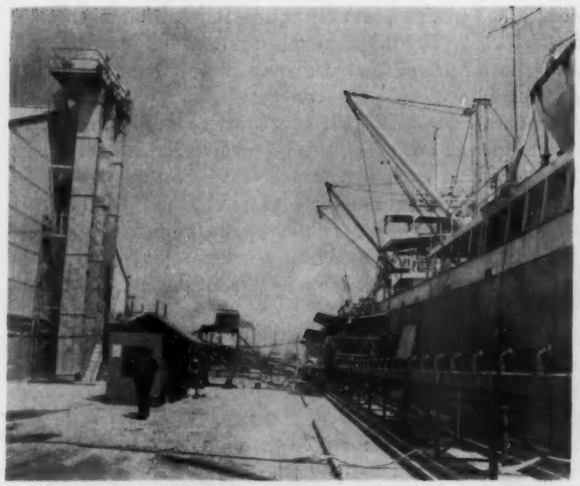
Increasing use in the South of nitrate of soda, resulting from wider knowledge of its value as a fertilizer, has made it an important traffic commodity for the Central of Georgia, which handles approximately 125,000 tons of the material annually. Hence, when the wood warehouse for the storage of nitrate burned down in March 1952 for the second time (the first fire occurred in 1939), the road decided to build a fire-resistant structure designed for the storage of 50,000 tons of the material.

The new structure, built at a cost of $610,000, was put into operation May 8. While it was being built, the nitrate was handled at another warehouse of the railroad which accommodates 30,000 tons. Designated as Warehouse No. 9, the new facility is 120 ft. wide, 504 ft. long, and has two covered side platforms 14 ft. wide extending the full length of the building. To provide an open storage area free from posts, the roof was constructed with a clear span of 120 ft. Its height permits the peak of the storage pile to be 34.5 ft. above floor level. The new warehouse is situated at right angles to the existing wharf which parallels the waterfront. Wharf and hoppers and conveyors, not seriously damaged by the fire, were reused.

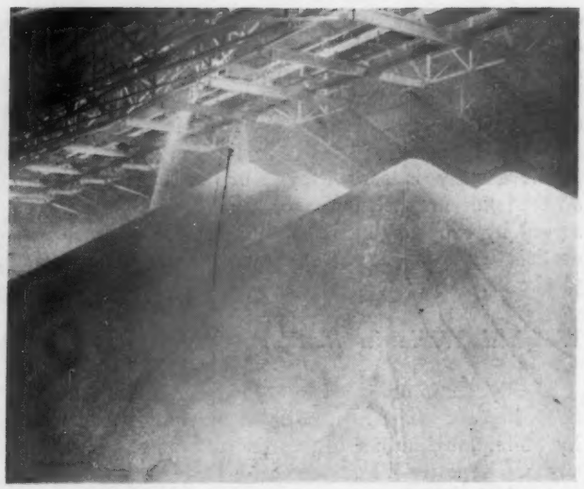
Warehouse No. 9 is designed to take the fertilizer,



UNOBSTRUCTED FLOOR AREA is 120 ft. wide by 504 ft. long. Concrete side walls were carried up 11 ft. above floor level. Roof is supported by three-hinged-arch type of steel framing.



OCEAN-GOING VESSELS bring the nitrate from Chile to be unloaded by clamshell into these wharf hoppers. From the hoppers, the material is conveyed to a cross conveyor which weighs it while in motion and drops it into hoppers of three elevating bucket conveyors.

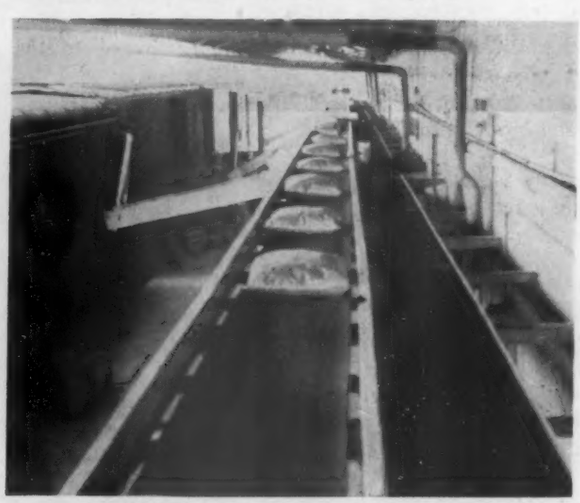


HUGE PILE of the nitrate fertilizer is formed by the central overhead 36-in. belt conveyor which carries the material from the elevating bucket conveyors. By means of two movable tripping machines, the overhead conveyor discharges the material at any point within the storage area.

HOUGH PAYLOADER pushes its bucket into the storage pile, picks up about 1¼ cu. yd. of the nitrate, and carries it to the bucket elevator of one of the bagging mills.

AT BAGGING MACHINE the nitrate is weighed out and deposited in heavy paper sacks, after which the mouths of the bags are closed and the tops folded down.

SEWING MACHINE stitches the folded tops of the bags together, after which the bags move out of the bagging mills onto . . .



. . . OVERHEAD CONVEYORS which carry the loaded bags to any of the car-loading stations, where diverting boards plow them into chutes.

originated in Chile by the Chilean Nitrate Sales Corporation, from ocean-going vessels, put it into storage, bag it, and load it into railroad cars for shipment. The material is bagged by forces of Smith & Kelly Co., agents for Chilean Nitrate Sales Corporation, and is shipped on its orders.

The facility is served by four tracks, located two on each side for the full length of the building. It is also served by two bagging mills, situated one on each side of the warehouse at the midpoint of the covered side platforms.

Weighed While in Motion

The nitrate is unloaded by clamshell buckets from the boats into six wharf hoppers from which it is transferred by 30-in. longitudinal conveyors to a 36-in. cross conveyor. The latter is equipped with a Merrick Weightometer which weighs the material while it is in motion. The fertilizer is then discharged into three bucket-type elevators which raise it for discharge onto a central overhead 36-in. belt conveyor, 41 ft. above the floor and running the entire length of the warehouse. Two movable trippers, controlled by switches at floor level and operating for the entire length of the central overhead conveyor, permit discharging the nitrate at any point in the storage area or onto lateral conveyors which feed it to hoppers in the bagging mills.

Each bagging mill is located on an elevated floor, permitting gravity delivery of the bagged material to the side platforms. Nitrate being unloaded from a vessel may be delivered by one of the lateral conveyors and chutes directly to the bagging mills without going into storage. For the bagging nitrate already in bulk storage, a power shovel is used to break up the hardened crust to permit the use of diesel-powered Hough Payloaders for transporting the material to a hopper at the base of the bucket elevator that feeds each of the bagging mills.

When discharged from a Payloader the material is dropped onto a bar grizzly over the elevator hopper for preliminary screening. The nitrate is then raised by the bucket conveyor and dropped onto a vibrating screen, from where it falls into a hopper which feeds directly to the bagging machine. The material not passing through the screen falls through a chute to a pulverizing machine where it is reground before being delivered to the elevator hopper.

Sacking Operations

The sacking operations on each side of the warehouse are handled by seven men and a foreman. One man takes a folded bag of heavy paper from a pile, opens and holds it under the spout from the hopper where two side holders immediately snap in place to hold the bag open while it is being filled. Almost at the same time another man throws a lever which allows the fertilizer to flow into the sack, the bottom of which rests on the platform of a scale. When the dial of the scale shows the sacked load to be 100 lb., the flow is shut off and the filled sack is mechanically moved off the scale platform.

Two other men pull the mouths of the sacks together and fold them down for sewing. Two more men handle the sewing operation, with one man feeding the folded tops of the sacks to the machine and the other man operating the machine and cutting the string after each sack is sewed. The 100-lb. sacks move out of the bagging mill on a power-driven slat conveyor and fall onto a short intermediate 30-in. belt conveyor which delivers them onto a long overhead belt conveyor extending the length of the side platform. The latter conveyor serves 10 loading stations along each platform.

At each loading station, a plow can be moved across the overhead conveyor to deflect the bags into a chute, from which they fall onto a Flexoveyer. This is a portable power-operated conveyor made by the Flexoveyor Manufacturing Company of Denver, Colo. It can be bent at will to carry the bags through and around car doors. These conveyors are long enough to extend through a car on the track nearest the platform for loading cars spotted on the second track. They are electrically operated and have long extension cords for plugging into the nearest of the power receptacles provided along the platform.

On being delivered into a freight car by the Flexoveyor, the bags of nitrate are stowed by hand labor. This operation requires the use of 18 laborers to keep up with the two bagging mills when working at their full capacity of 23,040 bags per 8-hr. day. The four loading tracks permit the spotting of 40 cars.

Storage space for the empty bags is provided in two storage buildings, one on each side of the warehouse, from which the bags are delivered by belt conveyors over the tracks to the bagging mills.

Fire-Resistant Construction

To save time the new facility was built on the existing foundation of the old warehouse. The building is of fire-resistant construction throughout, having a steel frame covered with corrugated asbestos roofing and siding, except that the side walls are of reinforced concrete up to a height of 11 ft. above the warehouse floor.

The urgent need for the storage space to be provided by the new warehouse had some effect on the design of the building. Although the foundation of the burned warehouse was sound and intact, its reuse for the new structure made it necessary either to adopt the former 14-ft. spacing for the roof trusses or else delay construction while the foundation was altered for spacing the trusses 20 or 25 ft. apart. Because of the need for speed it was decided to use the former truss spacing.

Since structural steel in the sizes desired was difficult to obtain at the time the new structure was built, the road adopted the three-hinged-arch type of framing which not only required less steel, with a saving in cost, but also enabled erection to start earlier with the structural steel sizes that were available. And, to permit steel erection to proceed independently of the concrete side walls, the arch bases were protected by precast concrete boxes.

The structural steel work was detailed and fabricated by the Steel Products Company, Savannah, Ga., and was erected under subcontract by Steel Erectors, Inc. The overhead and distributing conveyors were built and installed by the Continental Gin Company, Birmingham, Ala. The bagging mill machinery was furnished by the Atlanta Utility Works, Altanta, Ga. The work was carried out under the general direction of H. G. Carter, chief engineer of the Central of Georgia, and G. A. Belden, assistant chief engineer.

Railway Officers

(*Continued from page 18*)

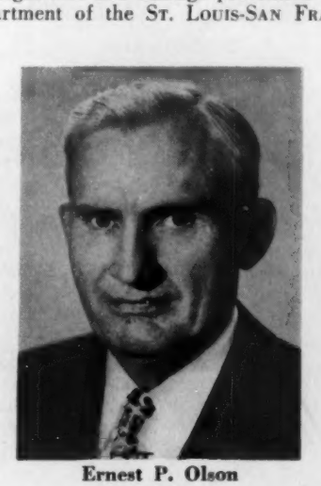
Brownell, assistant general counsel of the BOSTON & MAINE at Boston, has been elected vice-president and general counsel of Seatrain, effective October 1.

E. Frederic Uhrbrock, Jr., has been appointed assistant vice-president of the NEW YORK, NEW HAVEN & HARTFORD at New York (*Railway Age*, July 13). Mr. Uhrbrock, graduated from Columbia University in 1927, has had

E. Frederic Uhrbrock, Jr.

wide experience in analyzing financial and operating statistics of railroads for securities dealers, brokers, insurance companies and investment trusts. He has been head of the research department of Vilas & Hickey, 49 Wall street, New York, specializing in railroad financial problems, including plans for financing and recapitalization of railroads.

Named as head of the newly created freight loss and damage prevention department of the ST. LOUIS-SAN FRANCISCO is **Ernest P. Olson,** assistant general manager, who becomes assistant to vice-president at Springfield, Mo. Mr. Olson entered railway service in 1913 as clerk for the Santa Fe. He joined the Frisco in 1919 as dispatcher and in 1925 advanced to assistant trainmaster. Subsequently, he was trainmaster, assistant superintendent, special representative of general manager, and superintendent of the Central and later of the Eastern division. In 1950 he became general superintendent transportation and later that year assistant general manager.



Ernest P. Olson

Floyd H. Millard, vice-president and comptroller of the ST. LOUIS SOUTHWESTERN, at St. Louis, will retire September 1. Mr. Millard entered railway service in 1911 as draftsman

SP "Spanks Out" Book Tickets with New Gadget

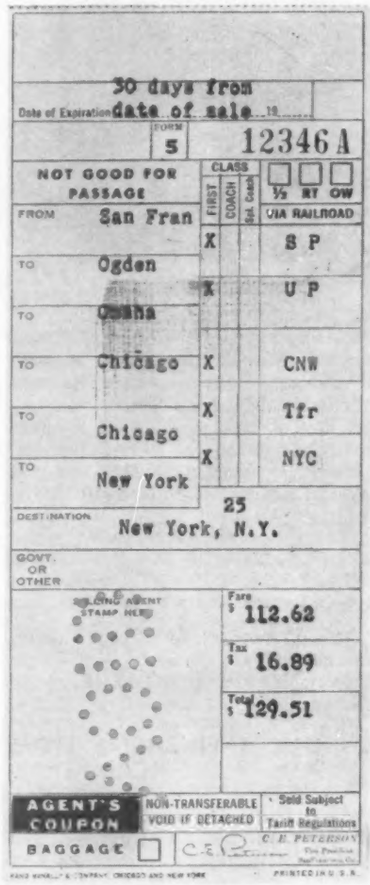
"It's faster and easier—and the carbons are much more legible" is how the Southern Pacific sums up the performance of its new "Ticketmaster."

This machine is simply an Addressograph Class 100 hand-operated "writing and addressing machine" which works from embossed metal plates. Its conversion into a ticket printing machine was accomplished by Carroll Farrar, agent at the SP's San Francisco city ticket office.

Exasperation plus inspiration led to the idea of adapting this common office machine to ticket use. It started when, one day just before closing, Mr. Farrar received a rush order for 35 round trips to New York.

It took Mr. Farrar several hours of pen pushing to make out the 70 books (2 books for each ticket), so he resolved "never again," and set about groping for a better way. The Addressograph machine in a neighboring office caught his eye. After a little tinkering, and the addition of a few gadgets to hold the ticket in place, he had his new "Ticketmaster." It works from two prepared stencils—one for the route, the other for the fare.

The machine has worked out so well, the SP is buying two electric models—one for the San Francisco city office, and the other for its Central Travel Service Agency in Los Angeles.



THE COMPLETED TICKET (above) is neat—and the carbons clearly legible.

ONE WHACK and it's done—Carroll Farrar (below) and his "Ticketmaster."

for the Milwaukee. In 1913 he became investigator for the Railroad Commission of Wisconsin and from 1916 to

Floyd H. Millard

1920 was assistant manager, statistical bureau, Western lines, and assistant to director of traffic, U.S. Railroad Administration. After joining the Cotton Belt in 1920 as assistant to president, he was named comptroller and assistant to president in 1927 and vice-president and comptroller in 1948.

Roy W. Nelson, assistant vice-president—traffic of the MINNEAPOLIS & ST. LOUIS, at New York, has been appointed resident vice-president.

The PITTSBURGH & WEST VIRGINIA has moved its main offices to Gateway Center, 420 Fort Duquesne boulevard, Pittsburgh 22, Pa.

FINANCIAL, LEGAL & ACCOUNTING

As *Railway Age* announced July 13, **R. R. Minor** has been appointed general claim agent of the ILLINOIS CENTRAL at Chicago and **W. B. Johnston** has been advanced to general claim agent at Memphis. Mr. Minor entered IC service as claim agent at Champaign, Ill., in 1941. He was promoted to office manager at Chicago in 1948 and in 1952 became special claim agent.

Mr. Johnston joined the IC as acting claim agent at Jackson, Tenn., in 1942, was later promoted to claim agent at Chicago, and in 1946 was transferred to Memphis. He became office manager at Chicago in 1952.

James E. Carr has been appointed general tax attorney of the NORFOLK & WESTERN at Roanoke, Va., a new position. A native of Farmington, Iowa, Mr. Carr is a graduate of Coe College and received his law degree from the University of Pennsylvania. He goes to the N&W from the Washington, D.C., law firm of Covington & Burling, where he specialized in tax work. He served in the Navy during World War II as lieutenant-commander.

C. W. Sholes, acting car accountant of the CHICAGO, BURLINGTON & QUINCY at Chicago, has been appointed auditor car accounts at that point.

Robert M. Boyd has been appointed western land and tax commissioner of the GREAT NORTHERN at Seattle.

Vila M. Graves, assistant secretary of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC, at Chicago, will retire August 31.

OPERATING

A. James, Jr., assistant superintendent of the LOUISVILLE & NASHVILLE, who has been named superintendent, Nashville Terminals, of the L&N and the NASHVILLE, CHATTANOOGA & ST. LOUIS (*Railway Age*, July 13), joined the L&N in 1937 as rodman, serving

A. James, Jr.

later as draftsman and instrumentman. After completing Army service, he returned to the railroad in 1946 as assistant engineer in the bridge department and subsequently became assistant trainmaster.

He advanced to the position of trainmaster in 1948 and was promoted to assistant superintendent at Louisville in 1951.

As reported in *Railway Age* July 6, **W. W. Huckeba** has been appointed superintendent, Waycross district, of the ATLANTIC COAST LINE at Waycross, Ga. Mr. Huckeba, born at Carrollton, Ga., joined the ACL in 1927 as agent at Lake Como, Fla. After service as agent-telegrapher, operator, agent-operator, extra dispatcher, regular dispatcher and chief dispatcher, all in Florida, he went to Waycross in 1947 as trainmaster.

W. L. Wood, assistant superintendent of the NORTHERN PACIFIC at Fargo, N.D., has been appointed superintendent, Yellowstone division, succeeding **R. W. Davis,** resigned. **O. A. Hanson,** trainmaster at Tacoma, Wash., succeeds Mr. Wood, while **K. A. Box** replaces Mr. Hanson. **F. M. Schaumburg,** trainmaster-roadmaster at Mandan, N.D., succeeds Mr. Box as

JOHN R. TRAYLOR, who has been named assistant to chief operating officer of the Missouri Pacific at St. Louis (*Railway Age*, August 10).

trainmaster at Tacoma. Mr. Schaumburg is replaced by **J. A. Hertog,** assistant roadmaster at Duluth.

F. G. Hoskins, who has retired as general manager, Eastern region, of the BALTIMORE & OHIO at Baltimore

F. G. Hoskins

(*Railway Age*, July 27), was born at Philadelphia July 25, 1883, and was graduated from the University of Pennsylvania (C.E., 1907). He entered railroad service in August 1907 as draftsman in the bridge department of the B&O, and in 1916, after holding various engineering positions, was appointed superintendent of the Ohio River division. In 1919, after World War I service with the American Railway Association (now A.A.R.) and the U.S. Railroad Administration, he returned to the B&O as superintendent, Baltimore Terminals, transferring to the Baltimore division two years later. He was appointed general superintendent, Maryland district, in 1930 and general manager, Eastern region, December 1, 1941.

John W. Belcourt has been appointed system inspector of services of the newly formed road transport department of the CANADIAN NATIONAL at Montreal.

As reported in *Railway Age* July 27, **Ralph E. Sease** has been appointed superintendent transportation of the CENTRAL OF GEORGIA, and has been succeeded as superintendent of the

Ralph E. Sease

Columbus division by **Walton L. Ector.** Mr. Sease, a native of Prosperity, Ga., who received a civil engineering degree from Clemson College in 1925, went with the CofG in November 1928 as draftsman, being promoted to assistant engineer in 1935. He was appoin-

Walton L. Ector

ted track supervisor in 1941; and was promoted to supervisor bridges and buildings, Savannah division, in 1944; to terminal trainmaster at Atlanta in 1945; and to superintendent, Columbus division, in 1952.

Mr. Ector was born in Meriwether county, Ga., and entered CofG service in May 1911 as roadmaster clerk. He was later a clerk in the stores department, accountant, and storekeeper, being promoted to general yardmaster in 1925. He was advanced to assistant trainmaster in March 1942 and to trainmaster in November 1942. He was trainmaster at Cedartown, Ga., at the time of his recent appointment.

S. F. Lynch, general manager of the ILLINOIS CENTRAL at Memphis, who retired July 31 (*Railway Age*, August 10), joined the IC in 1911 in the mechanical department at Jackson, Miss. After holding a number of clerical positions, he was appointed assistant trainmaster and subsequently trainmaster. He was named personnel agent at Chicago in 1939, and office manager to vice-president and general manager in 1940. He became superintendent transportation at Chicago in 1942 and

S. F. Lynch

general superintendent transportation in January 1945. He was appointed general manager in March of that year.

TRAFFIC

George Stiven, district passenger agent of the CANADIAN NATIONAL at Winnipeg, has been appointed general passenger agent, Atlantic region, at Moncton, N.B., succeeding **F. L. Dougan,** retired.

Mr. Stiven, a native of Scotland, joined the Canadian Government Railways at Moncton in 1917, as clerk. In 1926 he moved to Montreal to become secretary to general traffic manager and in 1930 became chief clerk to assistant traffic vice-president. His later positions included terminal pas-

THOMAS E. KEATING, assistant freight traffic manager of the Minneapolis & St. Louis, who has been advanced to freight traffic manager at St. Louis (*Railway Age*, July 20).

CARL A. LARSEN, freight traffic manager of the Illinois Central at St. Louis, who has been named assistant general freight traffic manager at Chicago (*Railway Age*, August 3).

senger agent at Toronto, city passenger and ticket agent at Windsor, Ont., and district passenger agent at Winnipeg.

Mr. Dougan started with the CGR in 1904 as telegraph operator and relieving agent at Georgetown, P.E.I. He subsequently served in various capacities in operating and traffic departments, including traveling passenger agent at Moncton; district passenger agent at Halifax, and, since 1943, general passenger agent, Atlantic region.

J. J. Kavanaugh, western traffic manager of the MISSOURI PACIFIC at San Francisco, whose retirement was reported in *Railway Age* July 6, joined the MP in 1907 as soliciting freight agent at Chicago. Later he became

J. J. Kavanaugh

traveling freight agent at Birmingham, Ala.; commercial agent at Monroe, La., and general agent at Salt Lake City (1910) and Chicago (1928). He became assistant traffic manager there in 1933 and in 1946 was appointed western traffic manager.

Milo A. Smith, general freight agent of the CHICAGO & EASTERN IL-

LINOIS, whose retirement was announced in *Railway Age* July 20, joined the C&EI in 1902 as office boy at Chicago, becoming traffic distributor in 1904, rate clerk in 1906, and chief of tariff bureau in 1927. He served as assistant general freight agent from 1946 to 1950, when he was promoted to general freight agent.

J. D. Bozard has been appointed agricultural and livestock agent of the ATLANTIC COAST LINE at Sanford, Fla.

Harry Arkle, freight traffic manager of the CANADIAN PACIFIC at Winnipeg, has been transferred to Montreal, to succeed **H. W. Gillis,** who will retire August 31, after 48 years of service. **W. M. Jamieson,** assistant freight traffic manager at Winnipeg, succeeds Mr. Arkle as freight traffic manager there. Mr. Gillis was born at Richmond, Que., December 7, 1889, and entered railroad service May 15,

H. W. Gillis

1905, as call boy with the CPR at Mile End, Que. After serving in various other capacities he became, successively, assistant foreign freight agent, assistant general freight agent, and assistant freight traffic manager at Montreal and Winnipeg. Mr. Gillis was named freight traffic manager at Montreal in March 1948.

Mr. Jamieson was born at North Bay, Ont., and entered CPR service as junior clerk in the freight service office at Toronto in 1912. He was appointed assistant to general freight agent in 1936; chief of tariff and division bureau in 1941; assistant general freight agent in February 1948; general freight agent in charge of sales and service in August 1949, and assistant freight traffic manager at Winnipeg in July 1951.

WILLIAM JOHN SIERING, assistant traffic manager of the Missouri Pacific at Detroit, who has been appointed western traffic manager at San Francisco *(Railway Age*, July 7).

SITES SUCCEEDS HAMMER IN A.A.R., PRESS, RADIO SERVICE

James N. Sites, special representative of the Association of American Railroads, has been appointed manager of the A.A.R.'s press and radio service in the Public Relations Department. Mr. Sites, who came to the A.A.R. in June 1951, will take over his new duties September 1, as successor to Harry E. Hammer, who is leaving the A.A.R. to join the public relations staff of the Reading.

Before joining the A.A.R., Mr. Sites was a reporter for the McGraw-Hill Publishing Company and for publications of the Chrysler Corporation in Detroit. He is a journalism graduate of Wayne University.

Mr. Hammer has been manager of the A.A.R. press and radio service since 1949. He previously directed public relations for Johns Hopkins Hospital at Baltimore, and for the Air Force Association at Washington, D.C. He graduated from the School of Journalism of the University of Missouri in 1942.

W. M. Jamieson

Harold L. Jones has been appointed district freight agent of the SOUTHERN PACIFIC at Fort Worth, Tex., succeeding **C. S. Elliot,** who has retired.

J. P. Francis, assistant superintendent of the PENNSYLVANIA at Chicago, who has been named superintendent motive power—diesel there (*Railway Age*, June 15), began his railway career with the PRR in 1931 as special apprentice. He later held the successive positions of gang foreman, enginehouse foreman, foreman enginehouse and car shops, assistant foreman, enginehouse foreman, and master mechanic. In 1952 he was named assistant superintendent at Chicago.

As *Railway Age* reported June 29, **B. N. Lewis** has been appointed assistant chief mechanical officer of the PULLMAN COMPANY at Chicago, while **L. F. Munson** has been promoted to general superintendent of shops. Mr. Lewis joined Pullman in 1934 as electrician apprentice at Chicago, and

B. N. Lewis

from 1935 to 1951 was successively electrician, assistant foreman, foreman, inspector and assistant superintendent of yards. In the latter year he became supervisor of personnel administration.

L. F. Munson

Mr. Munson began his Pullman career as an upholsterer in 1911. He was advanced to mechanical inspector in 1922 and to chief inspector in 1929, and was subsequently assistant manager of shops, manager of shops and

"NO COAL...NO WATER...JUST TAKE OFF!"

Emergencies don't operate on a timetable, so a wrecking crane has to be available for instant action. That's why the New York, New Haven and Hartford Railroad has replaced steam power in this 150-ton wrecking crane with a modern Cat* D337 Railroad Diesel.

"The great advantage in this Diesel," says Martin McDonough, wreck master, "is the fact there is no delay in getting started on a job. No coal, no water, just take off!"

But availability is only part of the story. This powerful D337 with torque converter will *deliver* on the job. Its intermittent 250-horsepower rating is an *honest* rating—you'll have it when you need it. And you won't find this engine—or any Caterpillar Railroad Diesel—dying while it idles. It uses low-cost No. 2 furnace oil, but it does not foul. You can depend on it to be operating when you need it.

Here's a railroad Diesel that backs up its availability record with fuel economy and all-weather dependability. It's thrifty to standardize on Caterpillar Railroad Diesels and cut down your parts inventory. You can get a replacement engine from your Caterpillar Dealer or you can specify it in new equipment. All leading manufacturers of railroad equipment can supply Cat Engines.

CATERPILLAR, Peoria, Illinois.

CATERPILLAR*

*Both Cat and Caterpillar are registered trademarks—®

SPECIFY CAT POWER FOR HIGH-PROFIT PERFORMANCE

assistant mechanical superintendent. He was promoted to mechanical superintendent in 1948.

As *Railway Age* announced July 6, **Marion C. Sharp,** assistant general superintendent motive power of the CHICAGO, ROCK ISLAND & PACIFIC, has been appointed superintendent motive power at El Reno, Okla. Mr. Sharp entered railway service in 1922 as messenger in the Rock Island stores department at Little Rock, transferring to the mechanical department in 1923 as machinist helper apprentice, later becoming machinist. After two years (1940-1942) with the Union Pacific, he was reemployed by the Rock Island as assistant diesel supervisor. He was promoted to diesel supervisor in 1943, to superintendent automotive equipment in 1946, to assistant to general superintendent motive power in 1950, and to assistant general superintendent motive power in 1952.

H. R. Wingeart, lubrication inspector of the NEW YORK CENTRAL at Detroit, has been appointed general car foreman at Jackson, Mich.

As *Railway Age* reported July 6, **Melvin R. Wilson** has been advanced to general superintendent motive power of the CHICAGO, ROCK ISLAND &

Melvin R. Wilson

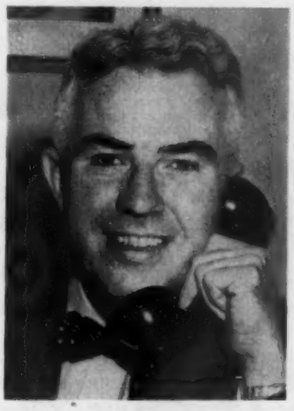
PACIFIC, succeeding **Fred J. Schleihs,** retired. **John D. Loftis** has been named assistant general superintendent motive power. Mr. Wilson entered railway service in 1915 as machinist apprentice for the Wabash, and from 1919 to 1924 served in a number of capacities with the Missouri-Kansas-Texas, the St. Louis-San Francisco, the New York Central and at the Washington, D.C., navy yard. In the latter year he joined the Rock Island as roundhouse foreman and later became general foreman. He was appointed master mechanic in 1939 and superintendent motive power in 1947.

Mr. Schleihs joined the Rock Island in 1916, and has held mechanical positions at Des Moines, Iowa; Silvis, Ill.; Blue Island, Ill., and Dalhart, Texas. Last year he was appointed general superintendent motive power.

Mr. Loftis began his railway career in 1928 with the Denver & Rio Grande Western. In 1943 he joined the Baldwin Locomotive Works in Cleveland as man-

Fred J. Schleihs

ager, becoming regional manager in 1944. He was appointed general superintendent motive power of the Atlantic Coast Line in 1945 and chief of



John D. Loftis

motive power and equipment for that railroad in 1947. He joined the Rock Island in 1952, serving successively as trainmaster, assistant superintendent and chief mechanical inspector.

SPECIAL

Pennsylvania Expands Medical Staff and Program

Expansion and reorganization of the medical department of the Pennsylvania, involving a staff of 56 full-time physicians and approximately 350 consultant physicians and surgeons, additional health maintenance centers and modern medical equipment, has been announced by Dr. Norbert J. Roberts, the railroad's medical director.

"Our new program will encompass all phases of industrial medicine," Dr. Roberts said. "We plan a system-wide 'maintenance of health' program designed to benefit all employees—and as a corollary, by keeping all personnel 'feeling better' it should contribute toward better service to our customers. Included are health education, preventive medicine, frequent physical examinations when indicated, and closer control of all working conditions. The medical program will supplement rather than in any way replace the care employees receive from their family physicians."

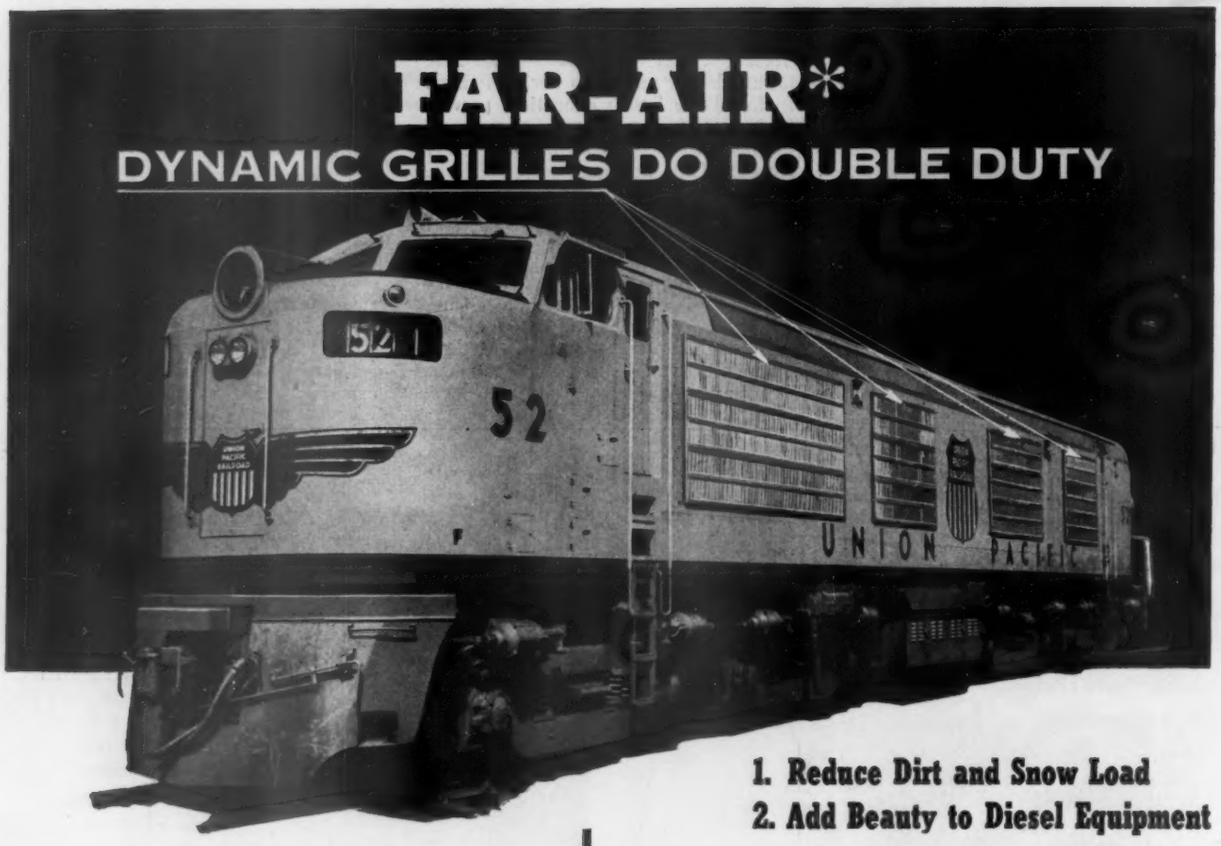
Dr. Alexander M. W. Hursh, the railroad's chief medical examiner since 1945, has been advanced to assistant medical director. For each of the three operating regions and at the Altoona, Pa., Works there is to be a medical officer in charge of the health program.

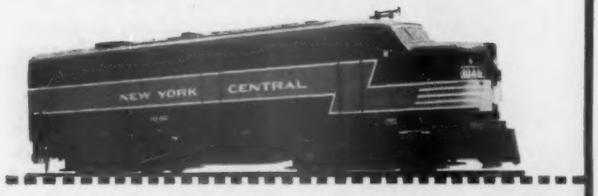
The staff also includes specialists in internal medicine, and medical officers on each of the principal operating divisions and in those cities with a concentration of PRR employees.

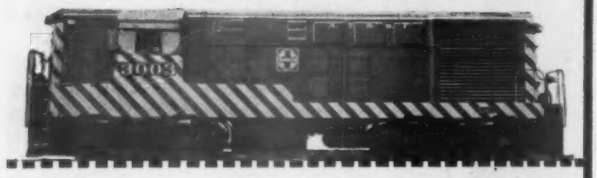
Dr. Charles W. Asbury has been appointed regional medical officer for the Central region, at Pittsburgh, and Dr. Donald L. Glenn becomes regional medical officer for the Eastern region, at Philadelphia. The regional medical officer for the Western region, at Chicago, will be appointed shortly. Dr. Nathaniel J. Fine, district medical examiner at Altoona, is advanced to

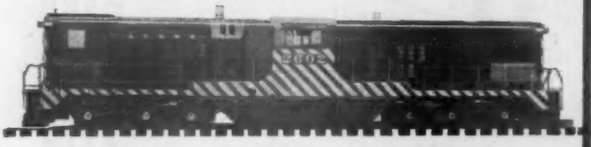
FAR-AIR*

DYNAMIC GRILLES DO DOUBLE DUTY









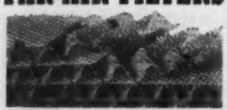
1. Reduce Dirt and Snow Load
2. Add Beauty to Diesel Equipment

When installed over air intake filters on Diesel locomotives, FAR-AIR Dynamic Grilles effectively deflect snow, dirt and other foreign particles, yet allow unimpeded entrance of air. The higher the air velocity passing the grille face, the greater the effectiveness.

Available in stainless or plain steel, FAR-AIR Dynamic Grilles add to the appearance and service life of any Diesel locomotive. This new Grille can be supplied in practically any size and for a variety of applications.

Farr engineers are always available to discuss special requirements, always glad to assist in solving difficult filtration problems. Write today for information on FAR-AIR Dynamic Grilles and other FAR-AIR railroad equipment.

FAR-AIR FILTERS



"Better by Farr"

*Trade Mark Reg.

FARR COMPANY

Manufacturing Engineers

CHICAGO · LOS ANGELES · NEW YORK

Mf'd under license by Control Equipment Co., Ltd., Montreal, Canada

medical officer of the Altoona Works.

Dr. Roberts also announced the following medical staff specialists in internal medicine: at Philadelphia, Dr. William W. Woodward; at Altoona, Dr. David M. Bishop; and at New York, Dr. Patrick H. Curran.

Within the next few weeks, divisional medical officers will be appointed, as well as medical officers to serve locally in major PRR on-line cities.

Ralph T. Shields has been appointed chief fire inspector of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Chicago.

Franklin A. Fitzpatrick, superintendent of the ILLINOIS CENTRAL at Clinton, Ill., has been appointed manager of personnel at Chicago. Named as assistant manager of personnel is **Earl Oliver,** assistant to manager of personnel, who in turn has been succeeded by **Walter J. Cassin,** trainmaster at Palestine, Ill. Appointed to the newly created position of supervisor of personnel development at Chicago is **James R. Sullivan,** trainmaster at Champaign, Ill. Mr. Fitzpatrick entered IC service in 1938 as laborer at Chicago. After holding secretarial positions in operating and law departments, he was named traffic director in the transportation department in 1941 and became trainmaster's clerk later that year. In 1945 he served as assistant trainmaster and later became trainmaster, serving at various locations. In 1952 he was promoted to assistant to general superintendent transportation, and later that year became superintendent, Springfield division, at Clinton.

Mr. Oliver joined the IC as stenographer in the personnel department in 1948, and advanced through the posts of claim inspector, wage inspector, and personnel assistant, before being promoted to assistant to manager of personnel in 1952.

Richard F. Read has been appointed editor of "All Aboard," published monthly by the ST. LOUIS-SAN FRANCISCO at St. Louis.

PURCHASES & STORES

Walter C. Brunberg, administrative assistant to president of the WESTERN PACIFIC, has been promoted to manager of materials and stores at San Francisco. Appointed as chief of planning and control in the purchasing department is **John C. Baird.** Mr.

Walter C. Brunberg

Brunberg joined the WP in 1937 as linen clerk in the dining car department. After subsequent promotions, he became assistant superintendent of dining cars, advancing to coordinator of safety and training in 1951. He was appointed administrative assistant in 1952.

James M. Day, assistant to general storekeeper of the SOUTHERN PACIFIC at San Francisco, has been advanced to assistant general storekeeper.

W. H. Ross has been appointed assistant to purchasing agent of the RUTLAND at Rutland, Vt. The position of general storekeeper, formerly held by Mr. Ross, has been abolished.

OBITUARY

William A. Hennke, assistant to general superintendent transportation of the CHICAGO, ROCK ISLAND & PACIFIC at Chicago, died recently.

JOURNAL BOX CLEANING

on your road can now be done EASIER, FASTER at LESS COST by using new OAKITE MECHANICAL method

Cleaning journal boxes and contained parts on freight cars is an essential operation in connection with ANNUAL REPACKING and INSPECTION as covered by A.A.R. Rule No. 66 and modifications. A newly-developed Oakite method now enables you to handle this important cleaning operation at extremely LOW COST. With a specially designed Oakite solvent- type material, cleaning is performed EASILY, SPEEDILY and SAFELY.

This time-saving Oakite method now used by a number of roads is MECHANICAL. It eliminates a lot of hand-work. It saves money. It helps prevent hot boxes. Special Service Report giving complete details gladly sent on request.

OAKITE PRODUCTS, INC., 46 Rector Street, NEW YORK 6, N. Y.
In Canada: Oakite Products of Canada, Ltd. 65 Front St. East, Toronto, Ont.

OAKITE

RAILWAY DIVISION

Current Publications

PAMPHLETS

WARNING LABELS; A GUIDE FOR PREPARATION OF WARNING LABELS FOR HAZARDOUS CHEMICALS. Manual L-1, Third Revision. 98 pages. Manufacturing Chemists' Association, 246 Woodward bldg., Washington 5, D. C. $1.

Continuing its efforts to achieve uniformity of state warning label regulations for hazardous chemicals, the Manufacturing Chemists' Association has issued this revised edition of its chemical labeling manual which is the authoritative reference for this purpose. The association believes essential precautionary information should reach every person using, handling, or storing chemicals, and that warning labels affixed to containers offer the most practical means of doing this. With the increasing tendency of individual states to favor legislation controlling chemical labeling, however, the manual has taken on the additional important function of providing a sound basis on which to achieve uniformity in state requirements. The new edition sets forth principles of proper warning label preparation and includes illustrative labels for some 250 industrial and agricultural chemicals. It also covers labels for small packages and for samples and new products for investigational use.

•

THIS IS DU PONT; THE STORY OF THE BUILDERS. 32 pages, illustrations. E. I. du Pont de Nemours & Co., Wilmington 98, Del. Free.

This brochure provides a tribute to the men and women of du Pont's engineering department, which is celebrating its 50th anniversary. It is "the story of the men who build, whose labors have enlarged and widened our civilization."

BOOK

TRAILER FLATCAR TRANSPORT: A STUDY OF ITS RELATIVE ECONOMY TO COMMON CARRIERS BY RAIL AND MOTOR. By E. H. Willetts. Illustrations, tables, graphs. Published privately by, and available from, the author, at 320 Kenmore rd., Douglaston 63, L.I., N.Y. $10.

Trailer-on-flatcar transport is a hot subject these days, and the author of this study attempts to indicate "the extent to which our rail and motor service, in the absence of a national transport policy, have failed to recognize the basic advantage of each to the other, at the expense of themselves, the shipping public and the national economy. It [the study] points the way to relief for all without expense, or legislative interference."

Mr. Willetts points out that railroads have a rapidly increasing surplus of relatively economical carload line-haul capacity. Trailers on flats, he argues, can be used to achieve the highly desirable objective of better utilization of this excess capacity.

However, Mr. Willetts says, the present semi-trailer is an uneconomic vehicle to use in "piggy-back" operations. After showing that its line-haul by rail (at the comparable charges developed) is less economic than by motor below 200 or 265 miles, depending upon overhead clearances, Mr. Willetts then shows how to increase loadings per car so as to improve the economy, that it may be shared by both rail and motor carriers from 100 miles upward. The increased loadings result from a change in the motor vehicle, rather than in the flatcar, which increases space utilization 50 per cent as a superstructure of a flatcar—demountable and also sectional, so that from two to 10 units, varying from 1,850 to 350 cu. ft. capacity, would be line-hauled on a 53½-ft. car, transferred between car and highway, then moved beyond railhead by an ordinary truck tractor. Comparable costs for each of the five different sizes of vehicles are shown, for from 100 to 1,100 miles.

For the contract service he proposes between rail and motor common carriers, transporting the basic flow, rather than the fluctuating overflow, of paralleling motor freight, Mr. Willetts indicates average annual earnings per car would approximate $28,800 (250 days).

Rates suggested by the author would save the trucker about $49 per vehicle (1,850 cu. ft.) on a trip of 1,050 miles. At the same time, Mr. Willetts avers the railroads would, at the minimum rate he suggests, make as much as—or more than—their present equated revenue per car-mile, which he states averages 28 cents.

The main quarrel the reader may have with Mr. Willetts' thesis would seem to be in his selection of "terminal" charges against the established carload freight service which he states do not apply to a trailer-flatcar operation. The reader may also quarrel with his reasons why rails should provide a trailer-flatcar service between key points, exclusively for paralleling motor freight.

PERIODICAL

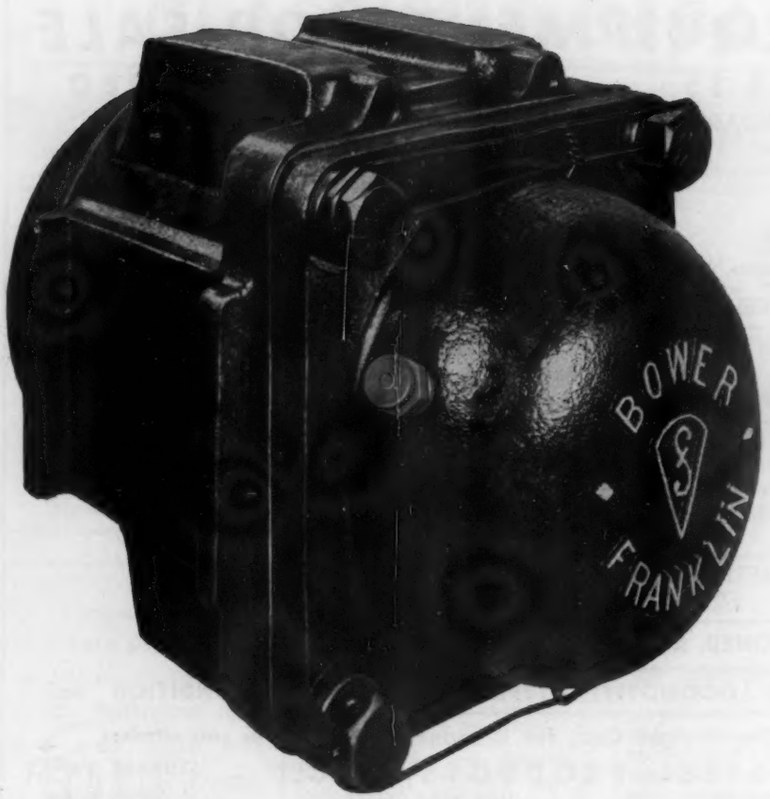
THE CHICAGO GREAT WESTERN RAILWAY, by Frank P. Donovan, Jr. The Palimpsest, June 1953. The State Historical Society of Iowa, Iowa City, Iowa. Single copies, 15 cents.

A brief history of the CGW. The first part is entitled Stickney's Railroad; the second, the Great Western in Iowa; and the third, the Chicago Great Western Today.

SAFETY KIT

OPERATION SAFETY. A program kit on traffic safety promotion. National Safety Council, 425 N. Michigan ave., Chicago 11.

The 1953 version of the "Signs of Life" program kit, the theme for safety promotion during the month of August, and the railroads' special contribution to the council's traffic safety program. It contains samples of numerous safety leaflets, listings of safety films, prepared radio announcements and other promotional material.



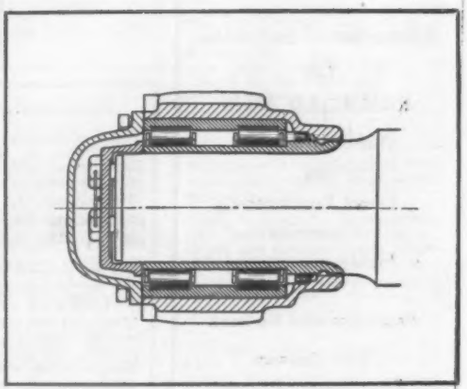
Eliminate hot boxes with this Bower-Franklin journal box

The recently announced Bower-Franklin roller bearing journal box is being manufactured by Franklin Balmar Corporation, a wholly owned subsidiary of Franklin Railway Supply Company, and the bearings are being produced by the Bower Roller Bearing Company of Detroit.

Bower is one of the largest roller bearing manufacturers, and one of the few making both straight and tapered roller bearings. As a producer of bearings for heavy earth-moving equipment and for the steel industry, it has had long experience with bearings comparable in size to those used on freight cars.

Franklin equipment has been used on every major railroad in the country. In recent years, Franklin Balmar Corporation has manufactured many thousand journal boxes for solid as well as roller bearings.

Sales and application engineering are being handled by the Franklin Balmar Corporation. Additional information will be furnished on request.



The Bower-Franklin journal box shown here is of the pedestal type. Simplicity of design is an important feature. The bearing, consisting of two rows of straight rolls running in single inner and outer races, permits free lateral. The sturdy retainer assures perfect alignment of rolls under all conditions. The housing completely surrounds and protects the bearing.

FRANKLIN BALMAR CORPORATION

FRANKLIN BALMAR CORPORATION
WOODBERRY, BALTIMORE 11, MARYLAND
CHICAGO OFFICE: 5001 North Wolcott Ave., Chicago 40

CLASSIFIED DEPARTMENT

RAILROAD EQUIPMENT—*FOR SALE*

USED **AS IS** **RECONDITIONED**

STANDARD GAUGE FREIGHT CARS

BOX, Steel Sheathed, 40-Ton
BOX, Double Sheathed, 50-Ton
BOX, Single Sheathed, 50-Ton
FLAT, 50-Ton Steel Underframe, 40'6" Long

GONDOLAS, Composite or All-Steel, 50-Ton
HOPPERS, Twin, All-Steel, 50-Ton Cross Dump
ORE HOPPERS, All-Steel 50-Ton Heavy Duty
TANK, 3,000-Gallon, High Pressure
TANK, 8,000-Gallon, Coiled and Non-Coiled

HOPPERS, ALL-STEEL, 70-TON, TRIPLE HOPPERS, *CROSS DUMP*

LONG, HEAVY-DUTY FLAT CARS
40- & 50-Ton Capacity, Length 70' and 74'
70-Ton, 60' Long; Heavy Steel Fishbelly-Type Underframe

CABOOSE CARS
Eight Wheel, Cupola Type

STANDARD GAUGE AIR DUMP CARS
Side Dump, 20-Yd., 40-Ton Lift Door
End Dump, 20-Yd., 50-Ton, Drop Door
SIDE DUMP, 30-Yd., 50-Ton, Drop Door

OTHER EQUIPMENT
Jordan Spreader
Locomotive Cranes
Overhead Cranes
Railroad Track Scales

STANDARD GAUGE DIESEL-ELECTRIC ROAD SWITCHING LOCOMOTIVE
300 H. P., 70-Ton, Type 0-4-4-0

5 AIR-CONDITIONED, ALL-STEEL DINING CARS—NEW 1937

5 MOUNTAIN-TYPE STEAM LOCOMOTIVES, TYPE 4-8-2, EXCELLENT CONDITION

Send us your inquiries **We Buy Freight Cars for Dismantling** *Send us your offerings*

REPAIR PARTS
For
All Types of
Freight Cars

IRON & STEEL PRODUCTS, INC.

GENERAL OFFICE
13486 S. Brainard Ave., Chicago 33, Illinois
Phone: BAyport 1-3456

NEW YORK OFFICE
50-c Church St., New York 7, N. Y.
Phone: BEekman 3-8230

"ANYTHING containing IRON or STEEL"

STORAGE TANKS
6,000 Gallon
8,000 Gallon
10,000 Gallon

Educational Services for RAILROAD MEN

Our New Service on Diesel Locomotive Operation is highly recommended for Engineers and Firemen

The Railway Educational Bureau
Omaha 2, Nebraska

POSITION WANTED

ENGINEER AVAILABLE

Want engineering job with responsibility or leading thereto. Experienced office and outside work maintenance and improvement.

Address Box 688, RAILWAY AGE, 30 Church St., New York 7, N. Y.

POSITION WANTED

Desires position as railroad supply salesman selling or servicing railroad products. Federal Academy graduate. Have 8 years in Operating and Mechanical departments of Class I railroad. Also, have selling experience. Will locate in Northeastern U. S.
Address Box 692, RAILWAY AGE, 30 Church St., New York 7, N. Y.

OFFICE WORKER

Man, aged 30, with valuable general background seeks railroad accounting or general office work position. Close student of railroad practices and industrial traffic management. Railroad supply experience. Will go anywhere.
Address Box 691, RAILWAY AGE, 30 Church St., New York 7, N. Y.

PROFESSIONAL DIRECTORY

Robert W. Hunt Company
ENGINEERS
Inspection—Tests—Consultation
All Railway Equipment
Structures and Materials
General Office:
175 W. Jackson Boulevard
CHICAGO
New York-Pittsburgh-St. Louis

Used Equipment To Sell?

Advertise in Classified Department

ROLLING STOCK

40 Ton Steel Sheathed Box Cars
50 Ton All Steel Gondolas
70 Ton All Steel Gondolas
8000 Gal. Tank Cars Cl. III
Coiled—Non Coiled
50 or 70 Ton Flat Cars 40' Long
30 Yd. Magor Drop Door Cars
20 Yd. Koppel Lift Door Cars
Jordan Spreader
Locomotives—Car Parts—Tanks

HYMAN-MICHAELS CO.
122 S. MICHIGAN AVE.
CHICAGO 3, ILL.
San Francisco Los Angeles St. Louis New York

YOCAR ESTAB. 1914

YOUNGSTOWN STEEL CAR CORPORATION
NILES, OHIO

Large scale producers of . . . big weldments on a production basis — die pressed channels for bus, truck and trailer chassis — railway cars, repairs and parts — miscellaneous heavy pressework.

CLASSIFIED DEPARTMENT

NEW AND USED EQUIPMENT

FOR SALE

Fourteen 70-ft. all-steel flat cars.

Wood decking and A B brakes. One private railroad car with living room, dining room, 3 bedrooms, and kitchen. All cars in first class condition. Will pass interchange. Inspection can be made at our Chicago yard.

Erman-Howell Division

LURIA STEEL AND TRADING CORP.
332 South Michigan Avenue Chicago 4, Illinois
Phone WAbash 2-0250

LOCOMOTIVES—
SALE OR RENT

10 TON DAVENPORT GASOLINE.
20 TON WHITCOMB GASOLINE.
45 TON G.E. DIESEL ELECTRIC.
3 100 TON G.E. & WHITCOMB DIESEL ELEC.

DARIEN,
60 E. 42nd St., N. Y. 17, N. Y.

FOR SALE

44 ton General Electric diesel electric locomotives. 380 HP. New 1951.

50 yd. Differential drop door steel air dump cars. NEW.

30 yd. Magor drop door air dump cars built 1951. 24 available.

MISSISSIPPI VALLEY EQUIPMENT CO.
509 Locust St., St. Louis 1, Mo.

RAILS 100# RELAYING ARA-B SECTION
500 Tons in Stock Ready for Immediate Shipment together with ANGLEBARS, TIEPLATES. Attractive prices quoted.

M. K. FRANK
480 Lexington Ave. Park Bldg.
New York City Pittsburgh, Pa.
105 Lake Street, Reno, Nev.

1500 KW RECTIFIER

Mercury Arc. Ignitron 1500V. DC, Automatic AC 3/60/44,000, NEW in 1941, First Class Complete WESTINGHOUSE Sub Station.

VERY REASONABLE PRICE

S. M. DAVIS
510 LaSalle St. Louis 4, Mo.

BUY
BONDS

CHICAGO TERRITORY OPEN

Also Several Other Choice Territories Available

For railway equipment distributors. Must know operating personnel, be resourceful, have initiative. Wanted by Baker-Raulang Company and Baker-Lull Corp. — manufacturers of complete line of gasoline and electrical powered fork, platform and crane trucks; also pneumatic-tired loaders, SIDE loaders, etc. with capacities from 1000# to 30,000#.

Reply: Mgr. Railroad Sales

BAKER - RAULANG COMPANY
1250 W. 80th Street, Cleveland 2, Ohio

POSITION OPEN

SALESMAN WANTED

Established company doing volume business in the railroad industry has opening for a young experienced salesman with a mechanical engineering background. This position requires good business judgment, resourcefulness, aggressive selling and some travel. Applicant should be married, and possess ambition, desire for permanent future, and willingness to earn merited salary increases. Salary is commensurate with ability and background, plus participation in a generous company bonus policy. Write full details to box 694, RAILWAY AGE, 30 Church St., New York 7, N. Y. Reply strictly confidential. Our employees know of this adv.

SALESMAN WANTED

An old established railway supply company has opening for a young, experienced salesman. This is a staff position requiring good business judgment, resourcefulness to plan, approve and coordinate sales operations. State age, education, salary expected and experience. Good future assured right man. Reply strictly confidential.

Address Box 686, RAILWAY AGE, 30 Church St., New York 7, N. Y.

SALESMAN WANTED

Wanted, salesman familiar with Maintenance of Way. Good income; known product. Reply

Box 810, RAILWAY AGE
79 West Monroe Street
Chicago 3, Illinois

EXPERIENCED SALESMAN

Storage battery company has opening for a salesman with many years of experience selling to railroads. Excellent opportunity for right man to develop business expected to multiply in the next few years. Answer with all necessary particulars. Reply strictly confidential.
Box 690, RAILWAY AGE, 30 Church St., New York 7, N. Y.

POSITION OPEN

ASSISTANT RAILROAD SUPERINTENDENT, large copper company, Chile, South America. Graduate Civil or Mechanical Engineer, several years experience operation and maintenance railroads, responsible for supervision personnel. Must be capable designing structures, such as bridges and other pertinences relative to railroads. Should have good working knowlege Spanish or be able pick up in short time. Man 35 to 40 years of age preferred. Starting salary for qualified applicant is about $10,000. U.S.Cy. per year. In reply give complete details.
Address Box 693, RAILWAY AGE, 30 Church St., New York 7, N. Y.

SIGNALMAN

Experience in railway signal work, construction, repair and maintenance.

Apply Philadelphia Transportation Co., Employment Department, Broad and Grange Streets, Philadelphia, Pa.

WANTED

Assistant Chief Engineer for Class I Railroad. Must have extensive engineering and administrative experience, both field and office. Salary open.
Box 727, RAILWAY AGE
79 West Monroe Street
Chicago 3, Illinois

WANTED

A qualified man for position of Master Mechanic to be placed in charge of the mechanical department of a short line railroad one hundred miles long. Located in the South. Eight diesel locomotives to maintain.
Address Box 695, RAILWAY AGE, 30 Church St., New York 7, N. Y.

WANTED

Representative currently calling on maintenance of way departments to handle our complete line of reflectorized signs. Write—
Mason & Sons Mfg. Co., Inc., Box 113, Addison, Illinois.

LOOKING FOR A JOB?
USE POSITION WANTED
COLUMN OF THE
CLASSIFIED DEPARTMENT

Advertisers IN THIS ISSUE

The information contained in the advertising pages of Railway Age constitutes an important supplement to the editorial content of this paper. Refer to them for the latest advances in equipment, materials and supplies.

ESSO DIESEL FUEL

Esso Diesel Fuel has been specially developed into a dependable, high-quality railroad fuel by years of research and testing. In one of the most exacting tests ever conducted Esso Diesel Fuel was proved on the run through over 300,000 miles of actual railroad operation. For sure, efficient, economical diesel fuel – be sure to specify Esso.

ANOTHER

DEPENDABLE ESSO RAILROAD PRODUCT

SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Penna., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

ESSO STANDARD OIL COMPANY – Boston, Mass. – New York, N. Y. – Elizabeth, N. J. – Philadelphia, Pa.–Baltimore, Md.–Richmond, Va. – Charleston, W. Va. – Charlotte, N. C. – Columbia, S. C. – Memphis, Tenn. – New Orleans, La.

Waybills for LCL shipped to and from Los Angeles are handled on these Teletype machines.

Teletype helps Southern Pacific cut LCL loss and damage claims

In Los Angeles alone, the Southern Pacific handles more than 250,000 tons of less-than-carload freight each year. Moving this great volume is a king-sized job, but the railroad does it so efficiently that loss and damage claims have been cut drastically since 1948.

Three fast overnight trains play a major part in rolling LCL shipments out of the city. Lengthy delays at break points must be avoided—and that's where Teletype steps in.

Waybills for LCL shipped on these overnight trains are handled by Teletype equipment in Los Angeles, and copies are reproduced simultaneously by Teletype printers at various break points. This way, the waybills are ready long before the LCL shipments reach their destination. Delivery schedules are prepared well in advance, and deliveries are expedited accordingly.

In the same way, Teletype handles waybills for shipments coming into Los Angeles. This cuts down terminal congestion, makes the truck dispatcher's job easier.

This use of Teletype is just one example of the many ways the nation's railroads depend upon printed communications.